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ABSTRACT

This publication describes specific sources of potentially useful information for those responsible for designing, installing, and operating competency-based education (CBE) programs. Four major types of resources are described: 1) available materials relevant to CBE programs, 2) products that provide guidelines for selecting from available materials, 3) products that provide guidelines for developing materials; and reference materials on the processes, problems, and potential of CBE. These resources are compiled into four content categories corresponding to the major components of CBE--outcomes, measures, instruction, and instructional management and recordkeeping. Product descriptions are indexed by component (related to product type and topic), by title, and by originator. Each product entry includes the title of the product, a brief product description, bibliographic data, originator of the product, intended users, purpose of the product, product content or focus, utility of the product for CBE implementation, development history of the product, product format and provisions for use, necessary conditions for product use, related materials and products, and ordering information. (Author/JG)

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Competency Based Education Sourcebook

Northwest Regional Educational Laboratory

Robert N. Gourley, Director
Oregon Competency Based Education Program

EA 010 148

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The Program is particularly indebted to Walter Hathaway, former Director of the Program, and to the many Oregon educators who participated in the field tryouts of the Sourcebook. Their reactions provided invaluable information for revision and refinement of the material. It is hoped that the Sourcebook will assist these dedicated educators and their colleagues in the provision of quality schooling for our nation's young people.

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PREFACE

Competency Based Education in Oregon

The Oregon Board of Education has mandated a set of competency based educational processes to be implemented by local school districts.* Local districts have flexibility in defining instructional outcomes and in selecting or designing procedures and materials for instruction, measurement, and instructional management and recordkeeping. While providing this flexibility, the state-mandated competency based education (CBE) processes are directed at ensuring that Oregon's public school education is based on outcomes that are stated explicitly and publicly, and that these outcomes are promoted and verified through carefully determined procedures. The state-mandated processes also reflect a responsibility to provide schooling that is effective and appropriate for all students, schooling that is directed toward ensuring each child's attainment of the competencies necessary to function effectively in society, and schooling that promotes outcomes far beyond a "minimum set"--outcomes that cumulate to represent the ideals of enlightened education in the best judgment of the community and of society.

The Northwest Regional Educational Laboratory's Oregon Competency Based Education Program (OCBEP) provides support to Oregon's educators as they implement competency based education processes. The Program attempts to provide that support in a manner that promotes understanding of CBE processes and awareness of program options, and that facilitates the smooth implementation of CBE programs.

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*Oregon Administrative Rules 22-200 through 22-300 (Minimim Standards) 23 June 1976.

CBE and Instructional Program Planning

Instructional programs may be conceptualized in terms of four components: (1) the desired outcomes that are stated; (2) the methods by which students' attainment of those outcomes are measured; (3) the means by which instruction is provided to students; and (4) the procedures by which information about students' outcome attainment is recorded, reported, and used. CBE processes have implications for these four components of instructional programs. The components described below are consistent with the basic elements of most CBE definitions.

Component	Definition
OUTCOMES	Pre-specification of the desired instructional outcomes, stated in terms of observable student performance.
MEASURES	Materials and procedures for determining students' attainment of outcomes. The measures should (a) require that students perform as stated in the outcomes, (b) adequately represent any content specified in the outcome statements, and (c) require performance in a mode appropriate for students.
INSTRUCTION	Materials and procedures for promoting students' attainment of the stated outcomes.
MANAGEMENT	Materials and procedures for recording each student's progress toward the attainment of program outcomes. The instructional management system should provide information on pupil and class performance for evaluating the effectiveness of instruction and introducing appropriate revisions, and should insure that program information is arrayed in a clear format for access by or reporting to interested audiences.

Analyzing instructional programs in terms of these four components reveals program strengths and weaknesses and provides a sound basis for careful and systematic instructional planning and decision making.

- If the desired educational outcomes are stated in terms of observable student performance and with clearly stated performance standards provided as evidence of outcome attainment, it is possible to judge the relative value of the outcomes (i.e., is the outcome important, and is it attainable?).

- If the outcome attainment measures are referenced to the stated outcomes, it is possible to make valid judgments concerning students' placement and progress in the program -- judgments based on reliable information regarding the status of each student on each program outcome. Such measurement also permits evaluation of the effectiveness of the instruction in promoting the desired outcomes (i.e., is the program accomplishing what it is designed to accomplish?).

- Given clearly stated outcomes and adequate measures to assess student attainment of those outcomes, the selection or design of instruction is facilitated. For example, it is possible to judge the compatibility of materials with the stated desired outcomes, and to determine the extent to which instructional materials present evidence of their effectiveness in promoting those outcomes. While formats for instruction are expected to vary widely, the criteria of compatibility (with program outcomes) and effectiveness (in achieving expected levels of accomplishment) should be applied to any instructional product (i.e., is the instruction appropriate, and is it verified as effective?).

- If the management system reports students' progress toward outcome attainment, informed judgments can be made concerning general program effectiveness and students' needs. Decisions can be made concerning program modification and supplementary or individualized instruction for students. Such a system of instructional management and recordkeeping not only facilitates reporting students' performances but provides data for crediting instructional accomplishments to the community and to other audiences.

The CBE Sourcebook has been prepared in response to the stated needs of educators for a description of the resources available and useful for the installation and operation of CBE programs in Oregon schools. As CBE programs may vary widely in focus, the materials referenced in this CBE Sourcebook represent a wide array of resources. The utility of any resource for a given program will vary with specific program characteristics within the broader CBE framework.

INTRODUCTION

The CBE Sourcebook

The CBE Sourcebook describes specific sources of potential utility to those responsible for designing, installing, and operating competency based education programs.

Four major types of resources are described:

1. available materials from which selections may be made;
2. products that provide guidelines for selecting from available materials;
3. products that provide guidelines for developing materials; and
4. references on the processes, problems, and potential of competency based education.

These resources are compiled into four content categories, corresponding to major components of CBE: (a) OUTCOMES, (b) MEASURES, (c) INSTRUCTION, and (d) Instructional MANAGEMENT and Recordkeeping. For easy access, source descriptions are indexed by component (related to resource type and topic), by title, and by originator (developer, author, agency, etc.)

Sourcebook item selection procedures and criteria are described in the following section of the Introduction. The resources included are consistent with the range of CBE processes mandated by the Oregon Board of Education, but the utility of any resource for a given program will vary with specific program characteristics or emphases.

The Sourcebook Item Selection Process

Systematic efforts were made to locate resources for inclusion in the CBE Sourcebook. Information regarding potential inclusions was obtained through:

1. contacts with Oregon schools and the Oregon Department of Education;
2. personal contacts with the developers of selected resource books;
3. contacts with educational research and development centers;
4. contacts with commercial educational publishers; and
5. a search of the sources identified below.

The following sources were searched for potential items for inclusion:

- Education Resources Information Center (ERIC), National Institute of Education, Washington, D.C. 20208

  ERIC is a national computerized educational information system which collects, processes, and makes available a wide range of educational documents.

- The Catalog of NIE Education Products, National Institute of Education, Washington, D.C. 20208

  This two-volume catalog, published in 1975, contains descriptive information on 660 products developed with Federal research and development funds.

- The Council for Educational Development and Research (CEDaR) Publications, Suite 206, 1518 K Street NW, Washington, D.C. 20005

  The CEDaR Catalog describes completed and anticipated products from ten national educational laboratories and nine university-based research and development centers.

- Three sourcebooks describing teacher education materials:

  1. The Florida Catalog of Competency-Based Teacher Training Materials, Panhandle Area Educational Cooperative, P. O. Drawer 190, Chipley, Florida 32428.
  2. Resources for Performance Based Education, W. Robert Houston
  3. The Stanford Catalog for Teacher Training Materials (This catalog is no longer available, but a related, revised, and updated service for disseminating information on teacher inservice materials is being developed by the Far West Laboratory for Educational Research and Development.)

- The Educational Dissemination and Linking Agent Sourcebook, Far West Laboratory for Educational Research and Development, 1855 Folsom Street, San Francisco, California 94103

This sourcebook describes the products of nine educational laboratories and R & D centers. The products described have the common objective of providing change agents with training resources or job aids.

For some component categories of the CBE Sourcebook, selection was made from hundreds of available products. For others, only a few quality resources were available. Descriptions of the vast numbers of commercially available instructional programs (Section C 1, Instruction--Available Materials: Sources for Descriptions of Instructional Programs), for example, was sharply contrasted with the number of products available to assist using in selected programs (Section C 2, Instruction--Selection Procedures: Instructional Programs). In cases where the number of potential entries was unmanageable (as with Section C 1), secondary sources, such as descriptive compilations, were employed.

In the selection process for Sourcebook extras, available products and materials were obtained, examined, and evaluated* using the following two criteria:

1. Is the product or material compatible with the goals and processes of CBE?
2. Is the product demonstrably effective in promoting its stated goals (when appropriate)?

In examining products for inclusion, priority attention was given to products that had undergone rigorous validation processes, where appropriate, and to resources that were demonstrated effective in educational settings. Priority was also given to products that, while not formally validated through traditional research and development methods, appeared to possess characteristics of quality educational resources.

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*A report detailing the selection procedures is available upon request from the Oregon Competency Based Education Program.

As with all products developed by the Oregon Competency Based Education Program, this CBE Sourcebook has been refined through an iterative process of tryout and revision. This current version has been field tested and subsequently revised for usefulness and clarity of (1) the introductory sections and indices, (2) the resource descriptions, and (3) the overall format.

Plans for continued refinement of the Sourcebook include periodic distribution of notices of updated materials to Sourcebook recipients. The proposed update package will include new Sourcebook descriptions, a list of outdated descriptions which will be eliminated, a revised index, and changes deemed essential based on user comments and suggestions concerning the content, format, and utility of the Sourcebook.

Formal user feedback will be collected regularly and will provide one basis for continuing Sourcebook refinement. A user questionnaire has been included in the back of the Sourcebook. Completion of the questionnaire will help ensure that your concerns are reflected in the updated materials.

Your reactions and suggestions are appreciated.

Using This Sourcebook

The key to locating anything in the Sourcebook is through use of a classification number. There are two different tools provided in order to assist you in identifying the number(s) you need--the Table of Contents and the Indices.

If you are using the Sourcebook for the first time, you should consult the Table of Contents. It reflects the classification of items according to component (letter designation) and type (numerical designation) of item. Take a minute now to refer to the Table of Contents and you will see for example that items beginning with the letter A treat the OUTCOMES component, and with the addition of the number 2, treats specifically the selection process; B 4. treats the MEASURES component, specifically references, etc.

If you are familiar with CBE processes and programs you will consult the Indices. Turn to that section now and you will find a brief explanation to guide you in using them. The classification number in the indices is complete and tells you exactly where to locate an item in a section, e.g., A 2.7 indicates that you want to find the seventh item in the A 2. section. Items that are part of a larger collection are described individually following an overview description and are also coded decimally, e.g., A 1.7.2 is assigned to the second part of the seventh collection in the A 1. section.

In summary, the only variation in classification numbers is in the first letter which distinguishes the component areas. Beyond that, the breakdown is the same, as shown on the next page.

CBE COMPONENT	TYPE OF TERM	CLASSIFICATION NUMBER
OUTCOMES --	AVAILABLE MATERIALS	A 1.1

o Title of Product	
o Descriptor	Summarizes the format, content, intended audience, and purpose of the product.
o Publication Information	Indicates publication dates and any special features of a resource (e.g., illus., appen., biblio.).
o Originator	Names the author, developer, and/or agency that sponsored the development.
o Intended Users	Indicates audience for whom the product is intended.
o Purpose	Identifies the rationale for development, the main goals, and outcome expectations of the product.
o Content	Specifies the major content or focus on the product.
o Usefulness Related to CBE	Describes the potential usefulness of the product to the implementation of CBE.
o History of Development	Specifies the development history of the product.
o Main Activities	Describes the activities (if any in which users engage).
o Provisions for Use	Describes product format, optimum number and kinds of personnel for which the product is designed, product components, and the time required for product use.
o Conditions of Use	Describes constraints on implementation of the product in a CBE context, and any organizational or personnel prerequisites.
o Related Materials	Lists other materials that are companion products for a CBE-related function.
o Ordering Information	Provides information on cost and ordering procedures.

INDICES

Using These Indices

Three indices have been provided to facilitate use of the Sourcebook. They are as follows: COMPONENT INDEX, TITLE INDEX, ORIGINATOR INDEX.

If you need a quick topical perusal of one or more sections, consult the COMPONENT INDEX. As shown earlier, there are four components--OUTCOMES, MEASURES, INSTRUCTION, and MANAGEMENT. All titles within each component are provided in the same sequential order that they appear in the Sourcebook. In addition, each title is accompanied by a one sentence description of the item.

If you are looking for a specific item but you don't know which component it would be classified under, consult the TITLE INDEX. All items are listed in alphabetical order along with the originator and the section number which is your locator to the item in the Sourcebook.

If you want to know which items have been included by a particular author, R & D Center, etc., consult the ORIGINATOR INDEX. These are also listed alphabetically with a complete listing of all items included and the section number to help you locate the item of your choice in the Sourcebook.

COMPONENT INDEX

SECTION A 1

OUTCOMES: AVAILABLE MATERIALS

A 1.1 Tri-County Goal Development Project Learning Goal Collections

A 12-volume set of 15,000 program and course goals in twelve basic K-12 subject areas, with two accompanying volumes.

A 1.1.1 K-12 Course Goals in Art

A collection of content specific learning goals in art for grades K-12.

A 1.1.2 K-12 Course Goals in Biological and Physical Science

A collection of content specific learning goals in biological and physical sciences for grades K-12.

A 1.1.3 K-12 Course Goals in Business Education

A collection of content specific learning goals in business education for grades K-12.

A 1.1.4 K-12 Course Goals in Health Education

A collection of content specific learning goals in health education for grades K-12.

A 1.1.5 K-12 Course Goals in Home Economics

A collection of content specific learning goals in home economics for grades K-12.

A 1.1.6 K-12 Course Goals in Industrial Education

A collection of content specific learning goals in industrial education for grades K-12.

A 1.1.7 K-12 Course Goals in Language Arts

A collection of content specific learning goals in language arts for grades K-12.

A 1.1.8 K-12 Course Goals in Mathematics

A collection of content specific learning goals in mathematics for grades K-12.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.1.9 K-12 Course Goals in Music

A collection of content specific learning goals in music for grades K-12.

A 1.1.10 K-12 Course Goals in Physical Education

A collection of content specific learning goals in physical education for grades K-12.

A 1.1.11 K-12 Course Goals in Second Language

A collection of content specific learning goals in second language for grades K-12.

A 1.1.12 K-12 Course Goals in Social Science

A collection of content specific learning goals in social science for grades K-12.

A 1.2 Educational Goals

A list of general goal statements with a description of procedures for their development.

A 1.3 Behavioral Objectives: Language and Literature, Grades K-12

Behavioral objectives for courses in English, grades K-12.

A 1.4 High Priority Objectives for Reading in Florida, Ages 7-9

A list of behavioral objectives of reading, chosen by teachers and reading specialists for Florida learners, ages seven and nine.

A 1.5 IOX Measurable Objectives Collections

A collection of 52 sets of content general objectives with accompanying sample test items for all areas of schooling.

A 1.5.1 Language Arts: Decoding Skills K-12 (No. 1R)

A collection of 118 content general objectives with five sample test items per objective.

A 1.5.2 Language Arts: Listening, Oral Expression, and Journalism K-12 (No. 6R)

A collection of 100 content general objectives with at least one sample test item per objective.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.5.3 Language Arts: Comprehension Skills K-12 (No. 2R)

A collection of 91 content general objectives with at least one sample test item per objective.

A 1.5.4 Language Arts: Composition Skills K-12 (No. 4R)

A collection of 171 content general objectives with at least one sample test item per objective.

A 1.5.5 Music K-6 (No. 31)

A collection of 97 objectives including measurement items for judging the adequacy of student responses.

A 1.5.6 Attitudes Related to Tolerance 9-12 (No. 36)

A collection of 13 affective objectives and measuring devices to assess secondary students' tolerance of other secondary students' values and opinions.

A 1.5.7 Attitudes Toward School K-12 (No. 35R)

A collection of 42 affective objectives and related measurement instruments to be used in group assessment.

A 1.5.8 Judgment: Analyzing Fallacies and Weaknesses in Arguments 7-12 (No. 50)

A collection of 34 content general objectives describing types of fallacious arguments and sample items for purposes of identification.

A 1.5.9 Judgment: Deductive Logic and Assumptive Recognition 7-12 (No. 37)

A collection of seven affective objectives and related measuring devices to assess students' ability to exercise critical judgment.

A 1.5.10 Knowledge and Attitudes of Drug Usage 4-12 (No. 41)

A collection of 24 objectives including cognitive and affective measures for use in developing effective drug education programs.

A 1.5.11 Measures of Self-Concept K-12 (No. 34R)

A collection of 30 affective objectives and related measurement instruments to be used in group assessment.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.6 **Behavioral Objectives - Test Item Bank**

A collection of objectives and related test items covering four subject areas in each of four grade levels.

A 1.6.1 **Primary Language Arts**

A collection of approximately 489 behavioral objectives with 3,635 related test items for primary language arts instruction.

A 1.6.2 **Primary Mathematics**

A collection of 80 behavioral objectives with 574 related test items for primary mathematics instruction.

A 1.6.3 **Primary Social Studies**

A collection of 50 behavioral objectives and 334 related test items for primary social studies instruction.

A 1.6.4 **Primary Science**

A collection of 89 behavioral objectives with 389 related test items for primary science instruction.

A 1.6.5 **Intermediate Language Arts**

A collection of 202 behavioral objectives with 2,349 related test items for intermediate language arts instruction.

A 1.6.6 **Intermediate Mathematics**

A collection of 279 behavioral objectives with 2,675 related test items for intermediate mathematics instruction.

A 1.6.7 **Intermediate Social Studies**

A collection of 300 behavioral objectives with 2,792 related test items for intermediate social studies instruction.

A 1.6.8 **Intermediate Science**

A collection of 229 behavioral objectives with 1,078 related test items for intermediate science instruction.

A 1.6.9 **Junior High Language Arts**

A collection of 217 behavioral objectives with 2,701 related test items for junior high language arts instruction.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.6.10 Junior High Mathematics

A collection of 260 behavioral objectives with 681 related test items for junior high mathematics instruction.

A 1.6.11 Junior High Science

A collection of 152 behavioral objectives with 1,153 related test items for junior high science instruction.

A 1.6.12 High School Language Arts

A collection of 571 behavioral objectives with 2,188 related test items for high school language arts instruction.

A 1.6.13 High School Mathematics

A collecion of 717 behavioral objectives with 2,767 related test items for high school mathematics instruction.

A 1.6.14 High School Science

A collection of 297 behavioral objectives with 855 related test items for high school science instruction.

A 1.7 Sourcebook of Training Products in Instructional Planning and Management

A source of information about training systems for instructional planning and management.

A 1.8 Clark County Curriculum Guides

Twelve teaching guides consisting of a list of behavioral objectives, suggested teaching methods, and media, covering eight specific areas of the curriculum.

A 1.8.1 Drug Abuse Education

A K-12 curriculum guide outlining component ideas, suggested methodology, and multimedia resources for drug abuse education.

A 1.8.2 EMR Guide K-12

A guide designed to assist teachers of educable mentally retarded in fitting the educational tasks/objectives to students' needs.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.8.3 Interim Curriculum Guide: Music K-12

A teaching guide developed as a precursor to an in-depth study for an articulated K-12 music curriculum guide.

A 1.8.4 Mathematics Curriculum Guide K-6

A guide for K-6 mathematics focusing on the sequential concepts necessary to build a sequential mathematics program.

A 1.8.5 Physical Education Curriculum Guide K-6

A guide for elementary teachers using fundamental approaches to physical education through the development of behavioral patterns.

A 1.8.6 Physical Education Curriculum Guide 7-12

A guide for teachers using fundamental approaches to physical education through the development of behavioral patterns.

A 1.8.7 Reading and the Kindergarten Child

A teaching guide describing reading as a three-stage process in kindergarten.

A 1.8.8 Reading Guide and Selected Multimedia 1-12

A guide for reading and curriculum specialists outlining a developmental reading program on a non-graded basis.

A 1.8.9 Social Science Study Unit: A Multiethnic Approach

A compilation of nine units of study relating to interpersonal relations and intercultural understanding for grades K-8.

A 1.8.10 Social Science

A curriculum guide and suggested media for grades 10-12 using the inquiry approach in all social science disciplines.

A 1.9 Appendices G, H, I, and J to the Final Report of the Evaluation Service Center for Occupational Education

The four separately published appendices describe objectives and test items in four areas of occupational education.

A 1.9.1 Appendix G: Criterion-Referenced Item Banking in Electronics

A report listing 162 objectives and 114 test items, including the history of development of the materials.

COMPONENT INDEX (CONT.)

SECTION A 1 (Cont.)

A 1.9.2 Appendix H: Performance Test Development in Machine Shop

A report describing field testing procedures and results of test items in machine shop.

A 1.9.3 Appendix I: Performance Test for Auto Mechanics

A report describing development procedures and test results of 47 items comprising a performance test in auto mechanics.

A 1.9.4 Appendix J: Woodworking Objective and Test Item Bank

A report describing procedures and results of the development of objectives and test items in woodworking.

COMPONENT INDEX (CONT.)

SECTION A 2

OUTCOMES: SELECTION PROCEDURES

A 2.1 CSE Elementary School Evaluation Kit: Needs Assessment

A kit providing a systematic and objective means for collecting data and selecting goals based on community priorities.

A 2.2 Pupil-Perceived Needs Assessment Package

A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils.

A 2.3 Project Management Executive Orientation

A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

A 2.4 Project Management Basic Principles

A multimedia, self-instructional training package to improve project-management techniques of school personnel.

A 2.5 Handbook of Comprehensive Planning in Schools

A training manual, designed to assist school personnel to define district-wide curriculum objectives and assess current school programs.

A 2.6 Rural Futures Development (RFD) Strategy

A comprehensive strategy for improving the capacity of rural educational communities to identify and solve educational problems.

A 2.7 Determining Instructional Purposes

A three-unit training package for educational administrators concerned with long range planning and decision-making.

A 2.8 Providing Organizational Development Skills (PODS) Program

A variety of programs providing practical knowledge, skills, and theories required to organize and manage educational systems.

A 2.9 Educational Goals and Objectives: A Model Program for Community and Professional Involvement

A packet containing activities for community goal setting and instruments for teachers in writing performance objectives.

COMPONENT INDEX (CONT.)

SECTION A 2 (Cont.)

A 2.10 Interpersonal Communications

An instructional program for school personnel showing how to increase interpersonal communications.

A 2.11 A Curriculum Rationale #8

A filmstrip-tape program showing teachers how to use Ralph Tyler's society-student-subject curricular rationale.

A 2.12 Deciding on Defensible Goals via Educational Needs Assessment #25

A filmstrip-tape program describing the use of preferential ratings of objectives to aid in the selection of educational goals.

A 2.13 Preparing Educational Training Consultants: Skills Training (PETC I)

The first in a series of three cumulative and sequential instructional systems designed to train educators in assisting small groups to improve process skills.

A 2.14 Educational Objectives #1

A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives.

A 2.15 Identifying Affective Objectives #10

A filmstrip-tape program for teachers outlining a four-step strategy for generating noncognitive objectives.

A 2.16 Project Interaction

A process of involving the educational community in developing objectives and solving problems.

A 2.17 Preparing Educational Training Consultants: Consulting (PETC II)

The second in a series of three cumulative and sequential instructional systems designed to help a cadre of educators acquire process training and consulting skills.

SECTION A 2 (Cont.)

A 2.18 Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III)

The third in a series of three cumulative and sequential instructional systems to provide organizational development skills for educational managers and consultants.

A 2.19 Interpersonal Influence

An instructional system for training educators in basic influence skills and phenomena.

A 2.20 Social Conflict and Negotiative Problem Solving

An instructional system to train educators in understanding and using the process of negotiations for role responsibility, dual accountability, and dealing with interpersonal conflict situations.

COMPONENT INDEX (CONT.)

SECTION A 3

OUTCOMES: DEVELOPMENTAL INSTRUCTIONS

A 3.1 Writing Objectives for Improved Instruction

A multimedia kit for teachers and administrators providing instruction and practice in writing objectives.

A 3.2 Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives

A workbook for teachers learning to write performance objectives.

A 3.3 Analyzing Learning Outcomes #11

A filmstrip-tape program for teachers which introduces task analysis of learner en route behaviors.

A 3.4 Writing Behavioral Objectives: A New Approach

A guide for educators in curriculum development attempting to state specific behavioral objectives and evaluate outcomes.

A 3.5 Defining Content for Objectives #9

A filmstrip-tape program describing how to formulate objectives which possess content generality rather than test item equivalence.

A 3.6 Establishing Performance Standards #4

A filmstrip-tape program describing how to distinguish between class and student minimal proficiency levels.

COMPONENT INDEX (CONT.)

SECTION A 4

OUTCOMES: REFERENCES

A 4.1 Where Behavioral Objectives Exist

An inventory of sources of behavioral objectives.

A 4.2 Preparing Instructional Objectives

This book describes the role and impact of well-stated objectives in instruction.

A 4.3 Considerations in Selecting and Using Instructional Objectives

A booklet explaining 11 factors to consider when writing or selecting objectives for effective instruction.

A 4.4 Priorities Planning: Judging the Importance of Individual Objectives

A short booklet designed to help educators choose among objectives.

A 4.5 Schools and Communities: Setting Goals

A booklet for schools that want to involve the community in goal setting.

A 4.6 Educational Objectives #1

A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives.

A 4.7 Stating Behavioral Objectives for Classroom Instruction

A practical guidebook designed to instruct the educator in the preparation of instrucational objectives.

A 4.8 Developing and Writing Performance Objectives

A booklet describing a system for developing and writing performance objectives.

A 4.9 Developing and Writing Process Objectives

A booklet describing a system for developing, writing, and monitoring process objectives.

SECTION A 4 (Cont.)

A 4.10 Instructional Objectives

A monograph series providing educators with a topical discussion of issues related to instructional objectives.

A 4.11 Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives

A procedural guidebook to assist pupil personnel staff in developing measurable objectives.

A 4.12 Evaluating Pupil Personnel Programs

A monograph discussing issues and procedures for guidance program evaluation.

COMPONENT INDEX (CONT.)

SECTION B 1

MEASURES: AVAILABLE MATERIALS

B 1.1 A Collection of Criterion-Referenced Tests: ERIC/TM Report #31

An annotated bibliography of 21 criterion-referenced tests available to program evaluators.

B 1.2 IOX Objectives-Based Test Collections

Thirteen objectives-based test sets in four subject areas.

B 1.3 The Northwest Evaluation Association Item Bank Collections

Collections of items in mathematics and language arts available in hard copy and computer based format.

B 1.4 Clark County Criterion-Referenced Tests

A set of criterion-referenced tests in mathematics and reading.

B 1.4.1 Clark County Mathematics Tests

Tests which assess student mastery of behavioral objectives as provided in the Clark County Mathematics Curriculum Guide K-6.

B 1.4.2 Mathematics Management Placement Test: Grades 3-6

A test of elementary mathematics skills to assist teachers with student diagnosis.

B 1.4.3 Mathematics Management System Diagnostic Step Tests

Tests (48) which help the teacher diagnose and identify specific skills.

B 1.4.4 Basic Mathematics Competency Test (Grades 7 and 8)

A multiple choice test used to diagnose student weaknesses in mathematics skills needed for survival in adulthood.

B 1.4.5 Experimental Procedures Used to Field Test Mathematics Criterion-Referenced Tests for Clark County, Nevada

A detailed description of steps taken toward quality control evaluation of items in mathematics tests.

SECTION B 1 (Cont.)

B 1.4.6 Clark County Reading CRT, Grades 2-4

A test designed to measure student competency of specified behavioral objectives provided by the district.

B 1.4.7 Reading Management System Placement Test

Multiple choice tests of elementary reading skills designed to assist the teacher in student diagnosis.

B 1.4.8 Reading Management System Diagnostic Step Tests

Tests (42) which help the teacher diagnose and identify specific skills.

B 1.5 Project TORQUE: A New Approach to the Assessment of Children's Mathematical Competence

A collection of criterion-referenced tests to help teachers evaluate mathematics skills of individual learners at the upper elementary level.

SECTION B 2

MEASURES: SELECTION PROCEDURES

B 2.1 Pupil-Perceived Needs Assessment Package

A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils.

B 2.2 Project Management Executive Orientation

A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

B 2.3 CSE Summative Evaluation Kit

An instructional kit for anyone involved in carrying out program evaluation.

COMPONENT INDEX (CONT.)

SECTION B 3

MEASURES: DEVELOPMENTAL INSTRUCTIONS

B 3.1 Curriculum and Instruction: Planning Improvement

A training package to assist school personnel in identification of suitable and feasible program improvements.

B 3.2 Evaluating a Curriculum Program: An Educator's Handbook

A workshop to teach school personnel to evaluate curriculum programs.

B 3.3 Write Test Items for Content Reference Tests

A learning package describing item writing procedures for test writers and evaluation specialists.

B 3.4 Editing and Classifying Existing Test Items

A learning package for test writers and evaluation specialists describing common flaws in and classification for test items.

B 3.5 Evaluation for Program Improvement

A training package in program evaluation.

B 3.6 Field Testing Test Items

A learning package for evaluation specialists describing procedures for field testing.

B 3.7 Test Organization and Layout

A learning package for evaluation specialists and test writers on describing test formating and construction.

B 3.8 Writing Tests Which Measure Objectives #29

A filmstrip-tape program for teachers describing the item form approach in devising measures which match objectives.

B 3.9 Alternative Avenues to Educational Accountability #22

A filmstrip-tape program for teachers which outlines the distinctions among personal, professional, and public accountability.

B 3.10 Alternative Measurement Tactics for Educational Evaluation #26

A filmstrip-tape program for teachers which describes a four-category system for generating measurement schemes.

COMPONENT INDEX (CONT.)

SECTION B 3 (Cont.)

B 3.11 Current Conceptions of Educational Evaluation #23

A filmstrip-tape program for teachers which identifies and analyzes four important conceptual distinctions in educational evaluation.

B 3.12 Management by Objectives

A multimedia kit designed to help administrators and board members implement an accountability system.

B 3.13 Educational Development, Dissemination, and Evaluation (DD&E) Training Resources

A program for training professionals in educational development, dissemination, and evaluation.

B 3.14 ISCS Individualized Testing System

Individualized evaluation materials for teachers wishing to design assessment appropriate to student needs.

B 3.15 Evaluation #7

A filmstrip-tape program presenting a general introduction to outcomes-oriented educational evaluation.

COMPONENT INDEX (CONT.)

SECTION B 4

MEASURES: REFERENCES

B 4.1 *Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests*

A booklet for the educational evaluator wishing to employ objectives-based measures.

B 4.2 *An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator*

A guidebook for organizing objectives, designing measures, and conducting course evaluations.

B 4.3 *Issues and Procedures in the Development of Criterion-Referenced Tests: ERIC/TM Report #26*

A nontechnical discussion of criterion-referenced tests (CRT's).

B 4.4 *Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments*

A detailed review of measurement instruments for teachers and administrators in adult education programs.

B 4.5 *CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills*

A reference book for educators which contains an evaluation of 2,610 scales measuring cognitive, affective, and interpersonal skills.

B 4.6 *CSE Secondary School Test Evaluations*

A three-volume reference kit designed to aid school personnel in selecting tests related to school program goals.

B 4.7 *CSE Elementary School Test Evaluations*

A reference book for evaluation specialists, containing evaluation of standardized achievement tests in all elementary school subject areas.

B 4.8 *CSE-ECRC Preschool/Kindergarten Test Evaluations*

A reference book for school personnel containing evaluations of the most commonly used measures of school achievement.

COMPONENT INDEX (CONT.)

SECTION B 4 (Cont.)

B 4.9	A Collection of Criterion-Referenced Tests: ERIC/TM Report #31 An annotated bibliography of 21 criterion-referenced tests available to program evaluators.
B 4.10	Current Conceptions of Educational Evaluation #23 A filmstrip-tape program for teachers which describes a four-category system for generating measurement schemes.
B 4.11	A Format for Monitoring the Teaching-Learning Process A booklet for any educator wishing to develop a process for monitoring an instructional program through the use of performance objectives.
B 4.12	Educating Children for Adulthood: A Concept of Psychosocial Maturity A research report describing a model of psychosocial maturity based on measurable attitudes and dispositions.
B 4.13	Measuring Psychosocial Maturity: A Status Report A research report describing the development of a self-report instrument for assessing learners, ages 11-18.
B 4.14	Schools and Maturity Program: Final Report A research report summarizing work units of the psychosocial maturity assessment program.

COMPONENT INDEX (CONT.)

SECTION C 1

INSTRUCTION: AVAILABLE MATERIALS

C 1.1 Educational Programs that Work

A collection of short descriptions of exemplary Title I projects.

C 1.2 Curriculum Development in Elementary Mathematics: Nine Programs

Provides in-depth information about nine elementary mathematics programs.

C 1.3 Catalog of NIE Education Products

A two-volume description of 660 products funded in whole or in part by the National Institute of Education.

C 1.4 ALERT, A Sourcebook of Elementary Curricula, Programs, and Projects

A guide to selected curricula, training programs, model projects, and resources in elementary education. Part of the ALERT Information System.

C 1.5 Modelog: A Catalog of Comprehensive Educational Planning Component Models

A catalog of planning models to assist school districts in identifying appropriate and effective programs based on local goals and needs.

C 1.6 Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71)

A series of descriptive and analytic reports about educational materials.

C 1.6.1 Analyses of Basic and Supplementary Reading Materials (EPIE Report #64)

Analyses of 76 commonly used reading materials.

C 1.6.2 Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)

Comparative systematic analyses of 18 elementary mathematics programs.

COMPONENT INDEX (CONT.)

SECTION C 1 (Cont.)

C 1.6.3 Early Learning Kits -- 25 Evaluations (EPIE Report #68)

Analyses of the instructional design of materials for preschool children.

C 1.6.4 Evaluations of Art Programs for Non-Artist Teachers (EPIE Report #52)

An evaluative report describing three art programs, two visual education programs, and resources for teachers of art classes.

C 1.6.5 Materials for Individualizing Mathematics Instruction (EPIE Report #65)

Analyses of 26 individualized instructional systems in mathematics.

C 1.6.6 Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)

Contains systematic, comparative analyses of social studies programs.

C 1.7 Secondary Social Studies Information Unit -- A Review and Analysis of Curriculum Alternatives

A collection of descriptions of 36 secondary social studies programs.

C 1.8 Social Studies Curriculum Materials: Data Book

A collection of social studies curriculum resources available for use by elementary and secondary teachers.

COMPONENT INDEX (CONT.)

SECTION C 2

INSTRUCTION: SELECTION PROCEDURES

C 2.1 SWRL Instructional Product Selection Kit (IPSK)

The kit enables users to apply an updated set of criteria when selecting instructional resources.

C 2.2 The Educational Information Consultant (EIC)

A team-learning program which explores methods of communicating research and development information to the educational practitioner.

C 2.3 Selecting a Curriculum Program: Balancing Requirements and Costs

A self-instructional training unit providing a six-step model of the process of selecting an instructional program to meet local needs.

C 2.4 Selecting and Evaluating Beginning Reading Materials -- A How-To Handbook (EPIE Report #62/63)

A report describing a process for analyzing and selecting reading materials.

C 2.5 Project Management Executive Orientation

A multimedia training product to introduce top-level administrators to concepts and techniques of project management.

C 2.6 Elementary Science Information Unit

A multimedia review of six science curricula to aid school personnel in deciding which of the programs suit their own situations.

C 2.7 Research Utilizing Problem Solving (RUPS)

An instructional program to give teachers and administrators skills and techniques in retrieving and utilizing knowledge used in resolving classroom problems.

COMPONENT INDEX (CONT.)

SECTION C 3

INSTRUCTION: DEVELOPMENTAL INSTRUCTIONS

C 3.1 Instructional Development Institute

A training program providing initial skills and competencies in the application of instructional systems principles.

C 3.2 Designing Effective Instruction (formerly Principles and Practices of Instructional Technology)

A 15-unit workshop in which curriculum specialists write objectives and design and evaluate instruction.

C 3.3 Learning System Design (LSD)

A multimedia series for use in pre-service or in-service which outlines techniques for instructional design.

C 3.4 Classroom and Instructional Management (CLAIM)

An eight-unit teacher training program concentrating on development of positive classroom environment through behavior analysis.

C 3.5 Perceived Purpose #6

A filmstrip-tape program for teachers describing four techniques for increasing student motivation.

C 3.6 Systematic Instructional Decision-Making #2

A filmstrip-tape program for teachers which provides an overview of a consequence-based instructional model.

C 3.7 The Analysis of Behavior in Planning Instruction

A textbook in methods of designing and evaluating curriculum materials.

C 3.8 Appropriate Practice #5

A filmstrip-tape program for teachers which describes how to provide learners with relevant instructional practice opportunities.

COMPONENT INDEX (CONT.)

SECTION C 3 (Cont.)

C 3.9 Discipline in the Classroom #15

A filmstrip-tape program for teachers illustrating how to apply contingency management procedures to problems of classroom control.

C 3.10 Individualizing Instruction #21

A filmstrip-tape program for teachers describing how to adapt classroom instruction to individual differences among learners.

C 3.11 Organizing Independent Learning: Primary Level (Minicourse 8)

A teacher training minicourse illustrating organizational skills for individualizing instruction.

C 3.12 Organizing Independent Learning: Intermediate Level (Minicourse 15)

A teacher training course designed to help in applying research-based independent learning skills.

C 3.13 Educational Development, Dissemination, and Evaluation (DD&E) Training Resources

A program for training professionals in educational development, dissemination, and evaluation.

C 3.14 Instructional Supervision: A Criterion-Referenced Strategy #17

A filmstrip-tape program for teachers explaining a consequence oriented approach to supervision.

C 3.15 Knowledge of Results #12

A filmstrip-tape program for teachers presenting guidelines for providing students with immediate feedback regarding their performance.

C 3.16 Curriculum and Instruction: Planning Improvement

A training package to assist school personnel in identification of suitable and feasible program improvements.

C 3.17 Instructional Tactics for Affective Objectives #24

A filmstrip-tape program for teachers which describes three tactics -- modeling, contiguity, and reinforcement -- for the promotion of affective objectives.

SECTION C 3 (Cont.)

C 3.18 Teaching Units and Lesson Plans #13

A filmstrip-tape program for teachers which provides an examination of key ingredients of effective written instructional plans.

C 3.19 Packages for Autonomous Learning (PAL) System

A self-instructional system for teachers wanting to learn how to plan, write, and evaluate learning activities or instructional packages (LAP's).

C 3.20 Individualizing Instruction: Materials and Classroom Procedures

A textbook utilizing techniques of individualized instruction on the topic of individualizing instruction.

C 3.21 Design and Development of Curricular Materials

A self-instructional training course in instructional design.

COMPONENT INDEX (CONT.)

SECTION C 4

INSTRUCTION: REFERENCES

C 4.1	Basic Principles of Curriculum and Instruction A book providing explanatory information on the rationale for curriculum and instruction in an educational setting.
C 4.2	Guidelines for Developing A Competency-Based Inservice Teacher Education Program A book of guidelines to assist school districts in planning a transition from traditional in-service to competency-based in-service.
C 4.3	Competency Tests and Graduation Requirements A monograph for administrators describing background information and the current movement toward competency tests as graduation requirements.

COMPONENT INDEX (CONT.)

SECTION D 1

MANAGEMENT: AVAILABLE MATERIALS

D 1.1 Evaluating Instructional Systems: PLAN, IGE, IPI (EPIE Educational Product Report: An In-Depth Report #58)

An assessment of three comparable, well-developed systems that stress individualized instruction.

D 1.2 System for Objectives-Based Assessment Reading (SOBAR)

An objectives-based system to measure reading achievement for K-12 students. Part of a mastery testing program in reading and mathematics.

D 1.3 TRACER

A computer program designed to assist the teacher with record-keeping.

D 1.4 Individually Guided Education (Multiunit School Implementation)

An alternative form of public schooling which focuses on student development through individualized curriculum and instruction.

D 1.5 Student-Centered Instructional System (SCIS): Mathematics

An objectives-based instructional system for seventh grade mathematics.

D 1.6 Planning the Education of Oregon Learners: Setting Goals

A pamphlet for school districts presenting the statewide goals for education and discussing the purpose and rationale for statewide and local goals.

D 1.7 Planning the Education of Oregon Learners: Completing the Management Cycle

A pamphlet for school districts describing procedures for gathering data on the extent to which statewide goals are being attained.

COMPONENT INDEX (CONT.)

SECTION D 2

MANAGEMENT: SELECTION PROCEDURES

D 2.1 Describe a Total Learning Management System

A learning package for teachers and evaluation specialists describing functions and components of a total learning systems.

D 2.2 Project Management Executive Orientation

A multimedia training product to introduce top level school administrators to concepts and techniques of project management.

COMPONENT INDEX (CONT.)

SECTION D 3

MANAGEMENT: DEVELOPMENTAL INSTRUCTIONS

D 3.1 Relevant Educational Applications of Computer Technology (REACT) Course I

A training course to introduce school personnel to the potential applications of computer technology to their field.

D 3.2 SWRL Proficiency Verification Systems (PVS): Mathematics and Reading

Semi-automated systems providing information about mathematics and reading instruction.

D 3.3 CSE Summative Evaluation Kit

An instructional kit for anyone involved in carrying out program evaluation.

D 3.4 Educational Development, Dissemination, and Evaluation (DD&E) Training Resources

A program for training professionals in educational development, dissemination, and evaluation.

D 3.5 Evaluating A Curriculum Program: An Educator's Handbook

A workshop to teach school personnel to evaluate curriculum programs.

D 3.6 IDEA Change Program for Individually Guided Education Ages 5-12

A teacher in-service program aimed at individualizing learning and continuous improvement of the staff and school.

D 3.7 School Planning, Evaluation, and Communication System (SPECS)

A set of processes for collecting and analyzing data describing school system outcomes, processes, and costs.

SECTION D 4

MANAGEMENT: REFERENCES

D 4.1 Opening Institutional Ledger Books -- A Challenge to Educational Leadership: ERIC/TM Report #28

A report describing ways of reporting test data to parent and community groups.

D 4.2 Evaluating Classroom Progress

A brief report describing a system for continuous classroom evaluation of individual learners.

D 4.3 Profiling and Tracking Students in C/PBTE Programs

A technical assistance paper detailing recordkeeping systems for Competency/Performance-Based Teacher Education Programs.

D 4.4 OTIS Users' Competency Recordkeeping Handbook

A description of the applications and uses of a competency recordkeeping system in Oregon.

TITLE INDEX

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Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives	Robert O'Hare, Southwest Regional Laboratory for Educational Research and Development (SWRL), and Howard J. Sullivan, Arizona State University (Eds.)	A 4.11
ALERT, A Sourcebook of Elementary Curricula, Programs, and Projects	Samuel N. Henrie, Senior Editor, Far West Laboratory for Educational Research and Development (FWL)	C 1.4
Alternative Avenues to Educational Accountability #22	W. James Popham, UCLA Graduate School of Education	B 3.9
Alternative Measurement Tactics for Educational Evaluation #26	W. James Popham, UCLA Graduate — of Education	B 3.10
Analyses of Basic and Supplementary Reading Materials (EPIE Report #64)	Educational Products Information Exchange (EPIE) Institute	C 1.6.1
Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)	Educational Products Information Exchange (EPIE) Institute	C 1.6.2
The Analysis of Behav	James G. Holland, Carol Research and Development Center (LRDC), University of Pittsburgh	C 3.7
Analyzing Learning Outcomes #11	Eva L. Baker, UCLA Graduate School of Education	A 3.3
Appendices G, H, I, and J to the Final Report of the Evaluation Service Center for Occupational Education	Evaluation Service Center for Occupational Education (ESCOE), Center for Occupational Education, School of Education, University of Massachusetts, Amherst	A 1.9

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Appendix G: Criterion-Referenced Item Banking in Electronics	William Phillip Gorth and Hariharan Swaminathan, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst	A 1.9.1
Appendix H: Performance Test Development in Machine Shop	Jim V. Fortune, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst	A 1.9.2
Appendix I: Performance Test for Auto Mechanics	Jim C. Fortune, ESCOE, Center for Occuaptional Education, School of Education, University of Massachusetts, Amherst	A 1.9.3
Appendix J: Woodworking Objective and Test Item Bank	Ronald K. Hambleton and Francis Olszewski, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst	A 1.9.4
Appropriate Practice #5	W. James Popham, UCLA Graduate School of Education	C 3.8
Attitudes Toward School K-12 (No. 35R)	Instructional Objectives Exchange (IOX)	A 1.5.7
Attitudes Related to Tolerance 9-12 (No. 36)	Instructional Objectives Exchange (IOX)	A 1.5.6
Basic Mathematics Competency Test (Grades 7 and 8)	Clark County School District, Las Vegas, Nevada	B 1.4.4
Basic Principles of Curriculum and Instruction	Ralph W. Tyler, Director Emeritus, Center for Advanced Study in the Behavioral Sciences, former Professor of Education and Dean, Division of Social Sciences, The University of Chicago	C 4.1
Behavioral Objectives: Language and Literature, Grades K-12	L. C. Leach et al., Arkansas State Department of Education, Little Rock	A 1.3

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Behavioral Objectives - Test Item Bank	Marcus Lieberman, Project Director et.al., Evaluation for Individualized Instruction Project, an ESEA Title III Project administered by Downers Grove Public School District 99, Downers Grove, Illinois	A 1.6
Catalog of NIE Education Products	National Institute of Education (NIE), U.S. Department of Health, Education, and Welfare, Washington, D.C. 20208	C 1.3
Clark County Criterion-Referenced Tests	Clark County School District, Las Vegas, Nevada	B 1.4
Clark County Curriculum Guides	Clark County School District, Las Vegas, Nevada	A 1.8--1.8.10
Clark County Mathematics Tests	Clark County School District, Las Vegas, Nevada	B 1.4.1--1.4.5
Clark County Reading CRT, Grades 2-4	Clark County School District, and Westinghouse Learning Corporation	B 1.4.6--1.4.8
Classroom and Instructional Management (CLAIM)	Instructional Systems Program, Central Midwest Regional Educational Laboratory, Inc. (CEMREL)	C 3.4
A Collection of Criterion-Referenced Tests: ERIC/TM Report #31	Joan Knapp, Commissioned Author, ERIC Clearinghouse on Tests, Measurement, and Evaluation, Educational Testing Service (ETS), New Jersey	B 1.1; B 4.9
Competency Tests and Graduation Requirements	James P. Clark, Research Associate, and Scott D. Thompson, Associate Secretary for Research, National Association of Secondary School Principals (NASSP)	C 4.3
Considerations in Selecting and Using Instructional Objectives	Howard J. Sullivan, Chairer, Department of Educational Technology, Arizona State University, and Division Head for Product Development for the Kindergarten Program, Southwest Regional Laboratory for Educational Research and Development (SWRL)	A 4.3

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CSE Elementary School Test Evaluations	Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), UCLA Graduate School of Education	B 4.7
CSE Secondary School Test Evaluations	Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), UCLA Graduate School of Education	B 4.6
CSE Summative Evaluation Kit	Center for the Study of Evaluation (CSE), UCLA Graduate School of Education	B 2.3; D 3.3
CSE-ECRC Preschool/ Kindergarten Test Evaluations	Center for the Study of Evaluation (CSE) and Early Childhood Research Center (ECRC), UCLA Graduate School of Education	B 4.8
CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills	Center for the Study of Evaluation (CSE), UCLA Graduate School of Education, and Research for Better Schools, Inc. (RBS)	B 4.5
Current Conceptions of Educational Evaluation #23	W. James Popham, UCLA Graduate School of Education	B 3.11; B 4.10
Curriculum and Instruction: Planning Improvement	Research for Better Schools, Inc. (RBS)	B 3.1; C 3.16
Curriculum Development in Elementary Mathematics: Nine Programs	Kathleen Devaney and Lorraine Thorn, Far West Laboratory for Educational Research and Development (FWL)	C 1.2
A Curriculum Rationale #8	W. James Popham, UCLA Graduate School of Education	A.2.11
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Design and Development of Curricular Materials	Doris Trayton Gow, Learning Research and Development Center (LRDC), University of Pittsburgh	C 3.21
Designing Effective Instruction (Formerly Principles and Practices of Instructional Technology)	General Programmed Teaching (GPT)	C 3.2
Determining Instructional Purposes	Joyce P. Gall, Charles L. Jenks, Linda J. York, J. Gregory Otto, and Nancy G. Bostick, Far West Laboratory for Educational Research and Development (FWL)	A 2.7
Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests	Jason Millman, Cornell University	B 4.1
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Drug Abuse Education	Department of Curriculum Services, Clark County School District, Las Vegas, Nevada	A 1.8.1
Early Learning Kits -- 25 Evaluations (EPIE Report #68)	Educational Products Information Exchange (EPIE) Institute	C 1.6.3

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Educating Children for Adulthood: A Concept of Psychosocial Maturity	Ellen Greenberger and Aage B. Sorenson, Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University	B 4.12
Educational Development Dissemination, and Evaluation (DD&E) Training Resources	Far West Laboratory for Educational Research and Development (FWL)	C 3.13; B 3.13; D 3.4
Educational Goals	Wisconsin State Department of Public Instruction, Madison	A 1.2
Educational Goals and Objectives: A Model Program for Community and Professional Involvement	Program Development Center of Northern California, Butte County Schools, Chico	A 2.9
Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives	Program Development Center of Northern California, Butte County Schools, Chico	A 3.2
The Educational Information Consultant (EIC)	Wayne Rosenoff, Project Director, Far West Laboratory for Educational Research and Development (FWL)	C 2.2
Educational Objectives #1	W. James Popham, UCLA Graduate School of Education	A 2.14; A 4.6
Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71)	Educational Products Information Exchange (EPIE) Institute	C 1.6
Educational Programs That Work	Far West Laboratory for Educational Research and Development (FWL)	C 1.1
Elementary Science Information Unit	C. L. Hutchins, Project Director, Far West Laboratory for Educational Research and Development (FWL)	C 2.6

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Evaluating a Curriculum Program: An Educator's Handbook	Research for Better Schools, Inc. (RBS)	B 3.2; D 3.5
Evaluating Classroom Progress	Don Bushell, Jr., Department of Education, University of Kansas, and the Behavior Analysis Program of Project Follow Through	D 4.2
Evaluating Instructional Systems: PLAN, IGE, IPI (EPIE Educational Product Report: An In-Depth Report #58	Educational Products Information Exchange (EPIE) Institute	D 1.1
Evaluting Pupil Personnel Programs	Robert O'Hare, Southwest Regional Laboratory for Educational Research and Development (SWRL), and Barbara Lasser, Northwest Regional Educational Laboratory (NWREL)	A 4.12
Evaluation for Program Improvement	Richard W. Watkins, Earl Mortensen, and Diana P. Studebaker, Educational Management Program; Far West Laboratory for Educational Research and Development	B 3.5
An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator	W. James Popham	B 4.2
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Guidelines for Developing A Competency-Based In-Service Teacher Education Program	Gordon Lawrence and Charles Branch, Florida Educational Research and Development Program	C 4.2
Handbook of Comprehensive Planning in Schools	Sanford Temkin, Michael D. Marvin, Hsuan De Lorme, and Herbert Demby, Administering for Change Programs, Research for Better Schools, Inc. (RBS)	A 2.5
High Priority Objectives for Reading in Florida, Ages 7-9	Division of Elementary and Secondary Education, Florida State Department of Education, Tallahassee	A 1.4
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High School Mathematics	Marcus Lieberman, Project Director et.al.	A 1.6.13
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	Schools and Maturity Program: Final Report	B 4.14
Gronland, Norman E., Professor of Educational Psychology, University of Illinois	Stating Behavioral Objectives for Classroom Instruction	A 4.7
Hambleton, Ronald K., ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst	Appendix J: Woodworking Objective and Test Item Bank	A 1.9.4
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Wisconsin Research and Development Center for Cognitive Learning	Individually Guided Education (Multiunit School Implementation)	D 1.4
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Yelon, Stephen L. et al., Michigan State University	Learning System Design (LSD)	C 3.3
York, Linda J. et al., FWL	Determining Instructional Purposes	A 2.7

For Oregon locations of the listed resources, contact:

Rob Fussell, Resource Specialist
Development Center
Oregon Department of Education
942 Lancaster Drive NE
Salem, Oregon 97310

Phone (503) 378-3566

Identifying Instructional Outcomes

Terms such as *goals, objectives, outcomes, and competencies* are all used to denote the intent of instruction or schooling. While some educators use these terms interchangeably, others attach distinctive meanings to each term. The terms *objective, outcome, and competency* generally will be used interchangeably in this Sourcebook.* The term *goal* generally will be used to describe a broad purpose or intent of instruction. These broad statements, while acceptable in some contexts, are unacceptable in others. Consider a goal statement such as "By the end of the term, the student will understand the organization of the orchestra." Such a general statement of intent provides unclear parameters within the context of planning instruction and evaluation. There are too many possible interpretations of that goal. Although all of the following behaviors could be appropriate, notice that the promotion of each would require very different instruction.

1. Given a recording of each orchestral instrument played in solo, the student will name the family to which each belongs.
2. Given pictures of each of the instruments of the orchestra and a list of names of the instruments, the student will identify each instrument by name.
3. Given a diagram of the orchestra, the student will label the string, woodwind, percussion, and brass sections.

Within the context of specific instructional planning and evaluation, then, overly general statements are inappropriate.

The appropriate level of generality or specificity in stating instructional intent is of concern in education. If school personnel

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*When *competency* is intended to connote outcomes of schooling that are deemed particularly critical to effective post-school functioning, the term *life-role relevant competency* will be employed.

attempt to identify the total range of objectives related to any course or content area, and then follow this by writing performance measures to assess each objective, the associated testing and recordkeeping tasks may be unmanageable. Broadly stated goals, on the other hand, provide inadequate bases for planning and decision making. More useful, clearly, are objectives of appropriate but not excessive specificity. "Appropriately specific" objectives, however, are hard to come by and are difficult to write. Even assuming their availability, however, they present educators with new problems.

Any public statements of objectives are open to criticism. Further. recordkeeping tasks related to the attainment of objectives may be viewed as complicated or burdensome. In efforts to deal with criticism of objectives, many schools have moved toward community involvement in setting the objectives of schooling. Similarly, to alleviate recordkeeping burdens, many schools have taken advantage of computer technology. In schools where computer-assisted recordkeeping is not currently feasible, the recordkeeping has been made more manageable by focusing on a limited number of high priority objectives rather than attempting to assess the total range. Popham (See B 4.2) describes the numerous benefits that have been realized by a high school completion program in which teachers made a deliberate attempt to reduce the number of target objectives by isolating powerful objectives which subsumed en route skills.

The development of a manageable number of clearly stated, measurable, worthwhile objectives is a critical task in the design of a CBE program. The task is not easily accomplished. It is frequently described as being extremely rewarding, as well as difficult and time consuming. The time required to establish a set of outcomes depends in part upon the procedures and resources used. It is no longer necessary, for example, for schools to write their own objectives in every curriculum area. Some excellent collections are available and some are accompanied by test items referenced to the outcomes. Users may select a set of outcomes from available lists and augment the set with additional objectives as appropriate.

This section of the CBE Sourcebook describes available materials and resources useful in identification, selection, and development of outcomes,

A 1 Available Materials -- Users may select appropriate and desirable outcomes from these materials.

A 2 Selection Procedures -- products which assist the user in (a) making informed selections from available materials, and (b) involving other school personnel and community members in the outcome-selection process.

A 3 Developmental Instructions -- products which teach users to write and revise their own objectives.

A 4 References -- references which provide information related to identification of instructional outcomes.

OUTCOMES -- AVAILABLE MATERIALS A 1.1

Title: Tri-County Goal Development Project Learning Goal Collections

Descriptor: A collection of 15,000 program and course goals in twelve basic K-12 subject areas.

Originator: The Tri-County Goal Development Project is a cooperative project of the Oregon school districts in Clackamas, Multnomah, and Washington counties. It has been partially funded through grants from the Oregon State Department of Education, the Office of the Superintendent of Public Instruction, the state of Washington, and the United States Office of Education, Department of Health, Education, and Welfare.

Intended Users: Curriculum planners seeking to help teachers specify learning goals.

Purpose/ Content: The collection of 15,000 learning goals covers the knowledge processes, values, and attitudes which nearly 200 master teachers and curriculum specialists believe students in grades K-12 might be expected to learn in all major fields of instruction. Two types of goals are included:

1. Program Goals are stated broadly to aid in defining the scope of programs such as science at the school system level.
2. Course Goals are stated to aid in planning the specific learnings to be achieved in courses such as algebra or primary grade science.

From 7-20 program goals are stated for each of 12 subject areas. As many as 200 course goals are included for each program goal. Special features of the collection are:

- comprehensive taxonomies of subject matter, knowledge process, and value and attitude learning, to help locate and interpret goals
- integration of basic skills and the total curriculum
- integration of career education and the total curriculum
- coding to show relationships between learning goals and the values and concepts they reinforce
- coding for easy interdisciplinary curriculum development and course planning

Usefulness Related to CBE: The collection of learning goals can be used to bring goal based planning, instruction, and evaluation closer to realization. They are a set of nonprescriptive student learning outcomes which can be used to:

- clarify goals of a school district to students, teachers, parents, and the community

Usefulness Related to CBE: (Cont.)

- guide the selection and development of teaching materials
- organize instruction
- evaluate the outcomes of instruction and increase accountability

Learning Goals are viewed by the developers as a means of communication about learning, rather than a source of confining, oversimplistic, and mechanistic control of teachers and learners.

History of Development:

Over 200 master teachers from more than 55 school districts in the Portland, Oregon, metropolitan area spent three years writing, selecting, and classifying learning goals.

With the assistance of curriculum specialists, evaluation specialists, and university consultants they:

- Developed a classification of knowledge process and value and attitude goals after reviewing the theoretical work of Bloom, Gagne, Piaget, Krathwohl, Walbesser, Tyler, Mager, and others.
- Developed comprehensive taxonomies of the subject matter of the instructional fields for which goals were to be written.
- Wrote statements of student learning outcomes (goals) that comprehensively covered the subject area described in each taxonomy.
- Compared goals to numerous local goal collections and commercially developed collections of behavioral objectives (such as the IOX Collection, Westinghouse Learning Project PLAN Collection, and the National Assessment Collection) to insure that learning in these collections was represented.
- Circulated drafts of learning goals for critique and revision.

More than 50,000 copies of the collections are currently in use throughout the nation.

Related Materials:

Trainer manuals and slide-tape presentations on how to use the goal collections are under development. They are expected to be available in 1977. For information contact:

Mr. Robert Allenbrand
Multnomah County Intermediate Education District
P.O. Box 16657
Portland, Oregon 97216

Ordering Information:

Write:
Commercial Educational Distributing Services
P.O. Box 8723
Portland, Oregon 97208

Prices subject to change; 33% discount on Oregon/Washington orders.

Ordering Information: (Cont.)	The cost of individual course goals collections is included with each description.

The following section (A 1.1.1 to A 1.1.12) includes descriptions of the course goals collections in the 12 subject areas as described above.

OUTCOMES -- AVAILABLE MATERIALS A 1.1.1

Title:	K-12 Course Goals in Art
Descriptor:	A collection of content specific learning goals in art for grades K-12.
Publication Date(s):	1974, 284 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	Curriculum planners and teachers should find this collection useful in specifying learning goals. The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for art are: (1) developing and using awareness; (2) history and culture orientation; (3) composition and language; (4) processes and products; and (5) art and design in environments. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 20 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, borrowing from the results of field review. To date, no complete revision has been made.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $10.00

Title:	K-12 Course Goals in Biological and Physical Science
Descriptor:	A collection of content-specific learning goals in biological and physical science for grades K-12.
Publication Date(s):	1973 (Revised Edition), 903 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged in a detailed taxonomy. The major headings for biological and physical science are: (1) values and science; (2) processes and science; (3) biology; (4) chemistry; (5) physics; (6) earth and space science; (7) reading and science; and (8) science and career education. A list of general program goals is provided in the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	A critique edition was produced in 1971. After extensive field review by users, the current revised edition was produced in 1973 by a different and larger group of teachers, specialists, consultants, and editors.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $30.00

OUTCOMES -- AVAILABLE MATERIALS A 1.1.3

Title: K-12 Course Goals in Business Education

Descriptor: A collection of content specific learning goals in business education for grades K-12.

Publication Date(s): 1973, 297 pp.

Originator: Tri-County Goal Development Project

Intended Users/ Purpose/ Content: Curriculum planners and teachers should find this collection useful in specifying learning goals.

The course goals are arranged in a detailed taxonomy. The major headings for business education are: (1) values and business education; (2) basic education and business education; (3) general business, personal finance, and consumer education; (4) business organization and management; (5) business law; (6) data processing; (7) recordkeeping; (8) accounting; (9) office skills; (10) distributive education/marketing; and (11) careers and business education.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See A 1.1 for usefulness statement.

History of Development: The group of developers consisted of more than 200 master teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals.

The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date, no revision has been made.

Related Materials: See A 1.1 for Related Materials.

Ordering Information: See A 1.1 for address of distributor.

Cost: $10.00

OUTCOMES -- AVAILABLE MATERIALS A 1.1.4

Title:	K-12 Course Goals in Health Education
Descriptor:	A collection of content specific learning goals in health education for grades K-12.
Publication Date(s):	1974, 314 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for health education are: (1) mental health; (2) physical health; (3) community health; and (4) safe living. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, based on results of a field review. No complete revision has been made to date, however.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $10.00

OUTCOMES -- AVAILABLE MATERIALS A 1.1.5

Title: K-12 Course Goals in Home Economics

Descriptor: A collection of content specific learning goals in home economics for grades K-12.

Publication Date(s): 1973, 263 pp.

Originator: Tri-County Goal Development Project

Intended Users/ Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for home economics are: (1) values and home economics; (2) basic education and home economics; (3) human development and the family; (4) clothing; (5) food and nutrition; (6) housing; (7) consumer education and management; (8) home nursing; and (9) careers and home economics.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See A 1.1 for usefulness statement.

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals.

The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date no revision has been made.

Related Materials: See A 1.1 for Related Materials.

Ordering Information: See A 1.1 for address of distributor.

Cost: $9.00

Title: K-12 Course Goals in Industrial Education

Descriptor: A collection of content specific learning goals in industrial education for grades K-12.

Publication Date(s): 1973, 228 pp.

Originator: Tri-County Goal Development Project

Intended Users/ Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for industrial education are: (1) values and industrial education; (2) basic education and industrial education; (3) industrial system functions; (4) industrial production functions; (5) safety; (6) service properties; (7) energy and power; (8) industrial communications; and (9) careers and industrial education.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See A 1.1 for usefulness statement.

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals.

The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date, no revision has been made.

Related Materials: See A 1.1 for Related Materials.

Ordering Information: See A 1.1 for address of distributor.

Cost: $8.00

Title:	K-12 Course Goals in Language Arts
Descriptor:	A collection of content specific learning goals in language arts for grades K-12.
Publication Date(s):	1973 (Revised Edition), 398 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for language arts are: (1) valuing and language arts; (2) language; (3) literature; (4) reading; (5) writing; (6) speaking; (7) perception; and (8) language arts and career education. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1971. After extensive field review by users, the current revised edition was produced in 1973 by a different and larger group of teachers, specialists, consultants, and editors.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $12.50

OUTCOMES -- AVAILABLE MATERIALS A 1.1.8

Title:	K-12 Course Goals in Mathematics
Descriptor:	A collection of content specific learning goals in mathematics for grades K-12.
Publication Date(s):	1974, 192 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for mathematics are: (1) number systems; (2) numeration; (3) mathematical sentences and their solutions; (4) relations and functions; (5) geometry; (6) measurement; (7) sets; (8) logic; (9) probability and statistics; (10) history of mathematics; and (11) computational devices. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $6.50

OUTCOMES -- AVAILABLE MATERIALS A 1.1.9

Title:	K-12 Course Goals in Music
Descriptor:	A collection of content specific learning goals in music for grades K-12.
Publication Date(s):	1974, 207 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for music are: (1) the elements of music; (2) reading music; (3) musical history and style; (4) listening to music; (5) performing music; (6) creating music; (7) the role of music in society; and (8) valuing and evaluating music. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $6.50

Title:	K-12 Course Goals in Physical Education
Descriptor:	A collection of content specific learning goals in physical education for grades K-12.
Publication Date(s):	1974, 193 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for physical education are: (1) basic skills of movement; (2) body control activities (perceptual motor activities, coordination, balance, and flexibility); (3) games of low organization (beginning, relay, and lead-up games); (4) team sports; (5) individual and dual sports; (6) recreational games; (7) lifetime (recreational) activities; and (8) physical fitness. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of field review. No complete revision has been made to date, however.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $6.50

Title:	K-12 Course Goals in Second Language
Descriptor:	A collection of content specific learning goals in second language for grades K-12.
Publication Date(s):	1973, 177 pp.
Originator:	Tri-County Goal Development Project
Intended Users/ Purpose/ Content:	The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for second language are: (1) values and second language; (2) basic education and second language; (3) the function of language in society; (4) nature of the language; (5) listening; (6) speaking; (7) reading; (8) writing; (9) culture; and (10) careers and second language. A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.
Usefulness Related to CBE:	See A 1.1 for usefulness statement.
History of Development:	The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals. The current critique edition was produced in 1973. A field review is underway, aimed at providing information for revision. However, to date, no revision has been made.
Related Materials:	See A 1.1 for Related Materials.
Ordering Information:	See A 1.1 for address of distributor. Cost: $6.50

Title: K-12 Course Goals in Social Science

Descriptor: A collection of content specific learning goals in social science for grades K-12.

Publication Date(s): 1976 (Revised Edition), 1040 pp.

Originator: Tri-County Goal Development Project

Intended Users/ Purpose/ Content: The course goals are arranged according to a detailed taxonomy. The major headings of the taxonomy for social science are: (1) geography; (2) history; (3) the behavioral sciences; (4) economics; and (5) political science.

A list of general program goals is provided at the front of the volume. Each course goal is referenced to one or more related program goals. In addition, each goal is identified by its appropriate educational level (primary, intermediate, upper, or higher), the type of knowledge or process it represents, its relationship to career education program goals, and related concepts or values.

Usefulness Related to CBE: See A 1.1 for usefulness statement.

History of Development: The group of developers consisted of more than 200 teachers, curriculum specialists, university consultants, and editors from the Portland metropolitan area. They were responsible for writing, selecting, and classifying the learning goals.

A critique edition was produced in 1972, and an editorial revision was made in 1974, based on the results of a field review. The current revised edition was produced by a different and larger group of teachers, specialists, consultants, and editors.

Related Materials: See A 1.1 for Related Materials.

Ordering Information: See A 1.1 for address of distributor.

Cost: $33.00

OUTCOMES -- AVAILABLE MATERIALS A 1.2

Title: Educational Goals

Descriptor: A list of general goal statements together with a description of procedures for their development.

Publication Date(s): December 1972, 27 pp.

Originator: Wisconsin State Department of Public Instruction, Madison

Intended Users: Boards of education, legislative bodies, or related groups which might be charged with the task of developing long range plans for assessment of educational programs.

Purpose/Content: The goal statements are divided into twelve major areas: basic skills, cultural development, self realization, human relations, mental and physical health, career education and occupational competence, cultural appreciation, lifelong learning, citizenship and political understanding, economic understanding, physical environment, and creative, constructive and critical thinking. Each goal statement is also labeled according to the group responsible for accomplishment:

1. outcome goals -- what the student needs upon leaving high school;
2. process goals -- instruction to achieve learner outcome goals;
3. institutional goals -- the role of educational establishments in facilitating the outcome goals.

Usefulness Related to CBE: Provides basic considerations relative to the development of educational goals for public education on a statewide basis. Public response, including specific questions and resulting modifications, show some of the problems to anticipate in formulating goals.

History of Development: Action by the 1971 Wisconsin legislature delegated the State Superintendent of Public Instruction the responsibility of developing an assessment program. Subsequently a 29 member committee was appointed and a list of basic assumptions was written to assist in goal formulation. Public hearings were held prior to the actual writing and testimony was received concerning 39 specific areas in public education.

These goal statements were excerpted from the Final Report of the Advisory Task Force on Educational Goals for Public Elementary and Secondary Schools of Wisconsin.

Related Materials: None

Ordering Information: This document is available (Order No. ED 081 663) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.65 (microfiche), $3.29 (hardcopy)

OUTCOMES -- AVAILABLE MATERIALS A 1.3

Title:	Behavioral Objectives: Language and Literature, Grades K-12
Descriptor:	Behavioral objectives for courses in English grades K-12.
Publication Date(s):	1970, 115 pp.
Originator:	L. C. Leach et al., Arkansas State Department of Education, Little Rock
Intended Users:	This book is a resource for teachers and curriculum specialists. It could also be of value in planning the content for in-service in local districts.
Purpose/ Content	There are 265 objectives of language grouped under the following headings: the nature of language, the history of language, dialect, morphology, phonology, sentence patterns, form classes, syntax, and semantics. The 361 objectives of literature are grouped under children's literature, the short story, the novel, poetry, drama, the essay, and critical approaches to literature. This provides the specialist with a broad base for planning curriculum content and assessing learner achievement.
Usefulness Related to CBE:	From this broad, inclusive list of objectives, teachers and specialists have a good starting point for developing a district-wide curriculum for language and literature.
History of Development:	The objectives were prepared by a group of consultants made up of Arkansas teachers, under the direction of the state specialist in English-Language Arts. There is no evidence that field testing was done, nor were any plans indicated for revision.
Related Materials:	None
Ordering Information:	This document is available (Order No. ED 079 763) from: ERIC Document and Reproduction Service P. O. Box 190 Arlington, Virginia 22210 Cost: $.65 (microfiche), $6.58 (hardcopy)

Title:	High Priority Objectives for Reading in Florida, Ages 7-9
Descriptor:	A list of behavioral objectives in reading, chosen by teachers and reading specialists for Florida learners, ages seven and nine.
Publication Date(s):	1972, 13 pp.
Originator:	Division of Elementary and Secondary Education, Florida State Department of Education, Tallahassee
Intended Users:	Reading specialists at the state and district levels.
Purpose/ Content:	A description is given of the four groups into which the objectives were divided. These groups are: 1. skills prerequisite to reading 2. skills in the mechanics of reading 3. skills to aid in reading comprehension 4. utilization of reading skills. Objectives are listed by level of difficulty, from easiest to most difficult. The overlap between lists for age seven and age nine permits determination of progress and retention. There are 66 objectives listed for age seven, 164 for age nine.
Usefulness Related to CBE:	Writing behavioral objectives cannot always occur simultaneously in all subject areas. Developers felt that as a basis for learning it should rightfully take precedence.
History of Development:	The original comprehensive list of reading objectives was prepared by the Center for the Study of Evaluation. This list was checked for consistency with the General Goals of Education in Florida by the Department of Education. Florida's 67 school superintendents nominated 112 reading specialists and 236 classroom teachers to select from this list. Department of Education specialists made the final selection of "high priority" objectives.
Related Materials:	None
Ordering Information:	This document is available (Order No. ED 071 054) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $.65 (microfiche), $3.29 (hardcopy)

OUTCOMES -- AVAILABLE MATERIALS A 1.5

Title:	IOX Measurable Objectives Collections
Descriptor:	A collection of 52 sets of content general objectives with accompanying sample test items for all areas of schooling.
Originator:	Instructional Objectives Exchange (IOX) was established in 1968 by the UCLA Center for the Study of Evaluation (CSE). Sets of objectives have been developed continuously since 1968.
Intended Users:	The collections are designed for use by individual teachers or districts seeking to specify the outcomes for instruction.
Purpose/ Content:	Each set includes objectives collections for an area of the curriculum. There are also collections of objectives dealing with the specification of attitudes, values, and judgments. IOX states that its purpose is to provide a valuable service to the educational community.
Usefulness Related to CBE:	The IOX collections present a timesaving alternative to the specification of objectives for a single course of instruction or for a comprehensive program. Since many of the objectives collections have been extensively reviewed and revised, it should be possible for a user to formulate an entire set of objectives with minor revisions and additions. The user of the collections has the benefit of the thinking of many others in the field, including subject matter experts.
History of Development:	The staff of the Exchange collected objectives from a number of sources in an effort to provide its users with lists from which to select. Each user may need to generate additional objectives in accord with individual curricular goals. The following statement appears in the introduction of the collection. Quality Control: Collections put out by the Exchange undergo a continual process of evaluation and revision during developmental stages. Procedures generally undertaken are: 1. at least one subject matter evaluation by an expert in the field, 2. evaluation by educational evaluators, and 3. evaluation by teachers in the grade levels concerned. The collections that contain complete measures are field tested for purposes of development prior to publication. Periodic revisions of the collections involve complete reviews and changes in the following possible areas: a. addition of new objectives b. rewording of inappropriate or unsuccessful objectives

History of Development: (Cont.)

c. restructuring or reordering of the Collection
d. the incorporation of areas reflecting new developments in the field or in teaching approaches."

Related Materials:

- An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator, (See B 4.2)
- Priorities Planning: Judging the Importance of Individual Objectives (See A 4.4)
- Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests (See B 4.1)
- Considerations in Selecting and Using Instructional Objectives (See A 4.3)
- IOX Objectives-Based Test Collections (See B 1.2)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024
(Delivery is very prompt)

Cost: Individual collections of objectives are $8.00 each plus 3% for postage and handling.

Order objectives collections by title and collection number.

A sample packet entitled IOX Objectives-Based Test and a brochure listing all available products may be obtained upon request.

The following section (A 1.5.1 - A 1.5.11) includes descriptions of the individual sets of objectives as described above.

OUTCOMES -- AVAILABLE MATERIALS A 1.5.1

Title:	Language Arts: Decoding Skills K-12 (No. 1R)
Descriptor:	A collection of 118 content general objectives with five sample test items per objective.
Publication Date(s)	1972 (Revised Edition), 142 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers or curriculum designers wishing to specify decoding skills are the intended users. The 118 objectives are arranged into five categories: 1. Discrimination -- diagnosis and mastery of discriminatory skills prerequisite to reading. 2. Sight Vocabulary -- student's gradual accumulation of a 250 word basic sight list. 3. Recognition of Letters by Name -- student's ability to recognize printed and script letters. 4. Recognition of Sounds and Their Association with Letters -- association of long vowels, short vowels, and single consonant sounds with their letters. 5. Pronunciation of Letter Combinations and Words -- pronunciations of vowel, consonant, and vowel-consonant combinations in context. There are two proficiency levels defined, third grade and city newspaper.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content general," it will be easy to adapt them to available instructional materials.
History of Development:	This collection was revised under the direction of Nola Paxton. Diane Narikawa and John Reich provided reviews of the material. Professor Earl Rand, Department of English, University of California, Los Angeles served as subject matter expert for external review.
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

OUTCOMES -- AVAILABLE MATERIALS A 1.5.2

Title: Language Arts: Listening, Oral Expression, and Journalism K-12 (No. 6R)

Descriptor: A collection of 100 content general objectives with at least one sample test item per objective.

Publication Date(s): 1972 (Revised Edition), 160 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users/ Purpose/ Content: Teachers or curriculum designers wishing to specify skills in the areas of listening, oral expression, and journalism are the intended users.

The list of 100 objectives is comprised of three sections. Section I, Listening, contains 31 objectives. These are divided into three major categories: affective listening, comprehension and interpretation, and analytical listening. The last 18 objectives require a student response in which there are no right or wrong answers. Several objectives require application of a particular concept to a given oral communication. Section II, Oral Expression, contains 50 objectives. These are primarily oral behaviors employed by English teachers. Each oral task is accompanied by a written task. Section III, Journalism, contains 19 objectives. They are organized as follows: journalistic techniques and journalistic forms. This collection covers forms and concepts basic to newspaper coverage; magazines and television news are excluded.

Usefulness Related to CBE: Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content general," it should be easy to adapt them to available instructional materials.

History of Development: The collection was revised under the direction of Jeanne Potter and John Reich. Elizabeth Buck, Kathy Mullins, Linda Paulson, and Nola Paxton provided reviews of the material at various stages of development.

Related Materials: See A 1.5 for Related Materials.

Ordering Information: See A 1.5 for address of distributor and cost.

Title:	Language Arts: Comprehension Skills K-12 (No. 2R)
Descriptor:	A collection of 91 content general objectives with at least one sample test item per objective.
Publication Date(s):	1972 (Revised Edition), 107 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers or curriculum designers wishing to specify comprehension skills are the intended users. The 91 objectives are organized into four sections: (1) Literal Comprehension; (2) Interpretation; (3) Vocabulary and Word Meaning; and (4) Comprehension of Non-Written Materials. Each objective includes at least one item for measurement. Where more than one item would be of use to the teacher, more evaluation items have been provided. Since the objectives are content general, the teacher may either select item content from textbooks or write items modeled after the sample items. In cases where constructed responses are required, criteria for judging the adequacy of the responses are provided. The teacher may substitute material that is appropriate for a particular student group and evaluate it based upon the criteria specified in the objective.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content general," it should be easy to adapt them to available instructional materials.
History of Development:	Professor Earl Rand, Department of English, University of California, Los Angeles, has provided a complete survey of the contents. Revision of this collection was directed by Nola Paxton.
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

OUTCOMES -- AVAILABLE MATERIALS A 1.5.4

Title: Language Arts: Composition Skills K-12 (No. 4R)

Descriptor: A collection of 171 content general objectives with at least one sample test item per objective.

Publication Date(s): 1972 (Revised Edition), 241 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users/ Purpose/ Content: Teachers or curriculum designers wishing to specify composition skills are the intended users.

There are two sections of this collection. Section I, Basic Composition, contains 127 objectives. These include skills taught in early intermediate grades as well as late secondary grades. The objectives in this section are arranged in five categories:

1. Story Writing: Fanciful and Realistic -- students identify and write in certain literary forms and genres.
2. Letters: Business and Social -- students identify the main constituents of letter types; follow specifications.
3. Figurative and Descriptive Language -- students identify and produce examples of descriptive and sensory language, personification, metaphor, simile, alliteration and onomatopoeia.
4. Poetry Skills -- students identify, analyze, and produce various common metrical patterns and rhyme schemes.
5. Poetry Writing -- students write types of poems most frequently taught, e.g., couplet, limerick, narrative, lyric, etc.

Section II, Paragraph Form and Development, contains 44 objectives. These objectives are divided into six categories:

1. Expository Paragraph Form -- main elements of the paragraph: topic sentence, development, direct and indirect sentence links.
2. General Expository Methods of Paragraph Development -- recognition, how and when to write paragraphs, e.g., identification, classification, cause and effect, definition.
3. Narrative Development -- understands chronology as distinguished from summarized and dramatized narrative.
4. Descriptive Development -- writes concrete, sensory details in a spatial order; uses transitional words of spatial movement and writes from a specific and objective authorial stance; begins and concludes with a general impression.
5. Discursive Development -- deals with inductive and deductive organization of expository paragraphs.

Intended Users/ Purpose/ Content: (Cont.)	6. Generative Development -- deals with coordination and subordination as described by Francis Christensen in Notes Toward a New Rhetoric: Six Essays for Teachers.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content general," it should be easy to adapt them to available instructional materials.
History of Development:	This collection was revised under the direction of Sharyn Frankel and Nola Paxton. Elizabeth Buck and Kathy Mullins provided staff reviews. Professor Earl Rand, Department of English, University of California, Los Angeles served as subject expert for external review. Thomas Gripp and Anne Marie Thames contributed objectives and items as well as adaptations from their publication, Programmed Approach to the Composition of Essay.
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

Title:	Music K-6 (No. 31)
Descriptor:	A collection of 97 objectives including measurement items for judging the adequacy of student responses.
Publication Date(s):	1970, 101 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers or curriculum designers wishing to specify major concepts, fundamentals, and applications in music appreciation at grade levels K-6. The objectives are organized into the following categories: Melody, Harmony, Musical Form (design), Musical Sound, Musical Style, Rhythm Performance Skills, and Band Instruments. Objectives in each category are arranged in ascending grade levels. Objectives are stated in operations terms and each category is further broken down into subcategories in order to be more definitive. There are several degrees of behavior required, ranging from simple recall of knowledge to the analysis of given situations. Most of the time, specific answers to the sample test items are provided, however, some contain references and directions to answers. Directions for the items are always written as they would be for students.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate to stated goals. Since the objectives are "content general," it should be easy to adapt them to available instructional materials.
History of Development:	Portions of the material are based upon contributions made by the following school districts: o Clark County School District, Las Vegas, Nevada o John H. Glenn Junior High School, San Angelo, Texas o Thurston Intermediate School, Laguna Beach, California o Seneca Highlands Humanities Project; McKean, Elk, and Potter Counties; North Central, Pennsylvania o Research and Development Center in Educational Simulation, University of Georgia, Athens, Georgia. Miss Frances Cole of El Monte School District in El Monte, California, added to and refined the material. Estelle Shane, Coordinator of Product Development for the Project for Research on Objective Based Evaluation, performed the final revision and organization of the material for inclusion in the collection.
Related Materials:	See A 1.5 for Related Materials.

Ordering Information: See A 1.5 for address of distributor and cost.

Title: Attitudes Related to Tolerance 9-12 (No. 36)

Descriptor: A collection of 13 affective objectives and measuring devices to assess secondary students' tolerance of other secondary students' values and opinions.

Publication Date(s): 1971, 114 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users/ Purpose/ Content: Teachers or curriculum designers wishing to specify affective objectives and measures for purposes of group assessment.

The developers stress at the outset that "measuring instruments provided here are not to be considered as 'measures of tolerance' but rather as 'measures of objectives' which have been judged to be related to the notion of tolerance."

Some problems related to assessing tolerance attitudes are discussed. First, people attach different meanings to the term tolerance. Second is the degree of tolerance assessed by the measurement.

The list of measurement techniques can be classified into three general categories: paper-and-pencil instruments, sociometric techniques, and observational measures. There are two types of paper-and-pencil instruments. One instrument gathers a student's "direct self report" of attitude and the other requires some interpretation of the response. Sociometric devices measure peer ratings and provide data for analysis of intergroup and interpersonal relations. Observation techniques involve an outsider or informal teacher observation depending on the local situation.

Usefulness Related to CBE: Provides a wide variety of objectives from which users may select according to local needs. Users of material in this collection should be aware of local values and attitudes.

History of Development: The project began with a literature search of the following topics: prejudice, interpersonal relations, intergroup (especially interracial) relations, and the measurement of attitudes and values in general.

Each of the objectives in the collection provides a basis upon which the rationale was developed.

The developers describe this further by stating that

History of Development: (Cont.)	"Heavy emphasis was placed on certifying the congruence of the objectives to the 'tolerance' construct, as well as the congruence of the measurement techniques, and even of individual items, to their related objectives." Reviewers have been selected from several disciplines at the university level, and teachers, administrators, and students at the high school level. Approximately 30 students completed each paper-and-pencil instrument. The schools chosen for field testing were made up of a racial or ethnic mix. All items have been "systematically revised" based on data collected from this field test. Plans are being made for further field testing.
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

OUTCOMES -- AVAILABLE MATERIALS A 1.5.7

Title: Attitude Toward School K-12 (No. 35R)

Descriptor: A collection of 42 affective objectives and related measurement instruments to be used in group assessment.

Publication Date(s): 1972 (Revised Edition), 183 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users/ Purpose/ Content: Teachers or curriculum designers wishing to specify affective objectives and measures development for purposes of group assessment.

The 42 objectives are listed in three sections: Primary (11), Intermediate (15), and Secondary (16). Within each section there are basically two types of measures. Self-Report measures are comprised of two types: (a) direct -- learner's opinions gathered through question-answer fashion; and (b) inferential -- learner's attitudes and interests gathered through "more oblique stimuli." Direct self-report measures were prepared so that a number of dimensions of the learner's attitude toward schooling were addressed. These dimensions include teachers, school subjects, learning, social structure and climate, peer, and general. Observational indicators vary considerably in the degree of what can be inferred from the response.

Usefulness Related to CBE: Users may select objectives from the collection that are appropriate for the local situation. Sensitive judgment should be employed in implementing all or parts of this material with respect to community attitudes and feelings.

History of Development: Development of the original version of self concept measures was supported by Title III programs in 18 states. These states collectively supported a developmental project by IOX who in turn produced objectives and measures in specific affective areas. The next step involved a literature search of relevant sources on self-concept and consultation with appropriate educators. Measures were developed and field tested.

The revision of these measures focused upon two major areas of concern: (1) involving more pupils in the development trials; and (2) including a larger and more representative student population.

The first step was to expand the total number of objectives and develop a systematic data-based revision of all measures currently in the collection, judging each measure's relevance to the objective in question.

History of Development: (Cont.)

Data gathered from approximately 1,000 pupils in Southern California school districts provided bases for the judgments. Many items were deleted or modified, and four new inferential measures were devised. With the cooperation of the Culver City Unified School District and the Marina Del Rey Junior High School of Los Angeles Schools, there was good representation of pupil socioeconomic status -- five were considered low, five were middle, and one was high.

Three questions were formulated based on field test data:

1. Were the several direct self-report subscales and inferential self-report measures which were ostensibly measuring the same or similar constructs, actually related?
2. Were the items in a given measure performing their assessment job homogenously, that is, were they behaving in about the same way with respect to the measurement of pupil behavior?
3. Were the measures reliable in the sense of yielding a relatively stable index over time?

To answer these questions, a five-step analysis was conducted. In the first step one of the measures was eliminated because of a lack of relationship to comparable measures. An item homogeneity index was employed in the second step to determine the relationship of individual items within each group of supposedly related items. In the third step an item stability index was used to calculate the reliability of particular items. The fourth step involved a survey according to these indices, and items were deleted which did not operate as specified. The Kuder-Richarson analysis was applied to the scores after the items were excluded.

Related Materials:

See A 1.5 for Related Materials.

Ordering Information:

See A 1.5 for address of distributor and cost.

Title:	Judgment: Analyzing Fallacies and Weaknesses in Arguments 7-12 (No. 50)
Descriptor:	A collection of 34 content general objectives describing types of fallacious arguments and sample items for purposes of identification.
Publication Date(s):	1974, 111 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers and curriculum designers wishing to specify affective objectives for purposes of group assessment. Objectives in this collection are listed and followed by an explanation of the fallacy to be examined. Sample items which illustrate the explanation are included, and the comments which follow provide answers. The items are varied depending on age of users, which ranged from upper elementary school through high school. The fallacies are categorized as three different types: fallacies of relevance, fallacies of insufficient evidence, and fallacies of ambiguity. Measures for each of the categories are provided, as well as pretests, posttests, and comprehensive tests. Developers claim that this logical tool is taught the same as any other skill. Each fallacy is explained alone, then a variety of examples are applied, and finally the fallacy is used in studying different disciplines.
Usefulness Related to CBE:	This set of objectives is new to the traditional elementary and secondary curricula. A wide variety of objectives is provided for users to select from based on existing curricular goals.
History of Development:	The objectives and measures in this collection were developed under the direction of Richard Morrow. Reviews of the material were provided at different stages of development by several IOX staff. Michael Harriman, University of Western Australia also provided extensive review of the collection. As with other IOX collections, a continual process of evaluation and revision is ongoing. This is the same process of quality control as described for IOX Measurable Objectives Collections (See A 1.5).
Related Materials:	Four textbooks which can serve as sources of arguments and information about fallacies are:

Related Materials: (Cont.)

- o Introduction to Logic, Irving M. Copi
- o Elements of Logic and Formal Science, C. West Churchman
- o Guides to Straight Thinking, Stuart Chase
- o Fundamentals of Logic, James D. Carney and Richard K. Scheen

Ordering Information: See A 1.5 for address of distributor and cost.

Title: Judgment: Deductive Logic and Assumptive Recognition 7-12 (No. 37)

Descriptor: A collection of seven affective objectives and related measuring devices to assess students' ability to exercise critical judgment.

Publication Date(s): 1971, 68 pp.

Originator: Instructional Objectives Exchange (IOX)

Intended Users/ Purpose/ Content: Teachers and curriculum designers wishing to specify affective objectives for purposes of group assessment.

This collection is one of a series developed to measure various aspects of the cognitive skill, judgment.

Skills of logical analysis are presented first because the developers felt these are prerequisite behaviors. They point out that interpretation of scores should be directly related to the student's ability to make logical judgments.

Objectives 1 and 2 are measured by the Conditional Reasoning Index, i.e., "if-then" statements. Objectives 3 and 4 are measured by the Class Reasoning Index, i.e., "all, none, some" statements. Objectives 5 and 6 deal with assumption recognition, in which two indices are used: one consisting of brief statements followed by proposed assumptions; the other having a several sentence argument with a list of suggested assumptions. Objective 7, Recognizing Reliable Observations, is its own measure. Students must judge the source of information.

Usefulness Related to CBE: Provides a wide variety of objectives from which users may select based on existing curricular goals.

History of Development: This is still another of the collection supported by several Title III programs. This is the first effort given to assessment of exercising critical judgment.

The measures in this collection were developed by Edith Shaffer and JoAnn Steiger. Gary D. Fenstermacher, Assistant Professor, Graduate School of Education, University of California, Los Angeles served as subject matter specialist providing critical reviews and suggestions. Cornelius Troost, Assistant Professor, Graduate School of Education, University of California, Los Angeles also provided reviews.

As with other IOX collections, a continual process of

History of Development: (Cont.)	evaluation and revision is ongoing. This is the same process of quality control as described for IOX Measurable Objectives Collections (See A 1.5).
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

OUTCOMES -- AVAILABLE MATERIALS A 1.5.10

Title:	Knowledge and Attitudes of Drug Usage 4-12 (No. 41)
Descriptor:	A collection of 24 objectives including cognitive and affective measures for use in developing effective drug education programs.
Publication Date(s):	1973, 101 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers or curriculum designers wishing to specify objectives relating to the understanding as well as views on drug usage. An attempt was made to develop measures from which users could choose based upon relevance to the given community. Measures are provided for upper elementary school students (grades 4-6) and secondary school students (grades 7-12). The measures are grouped as follows: knowledge measures which show what the students know; direct report measures asking the student's reaction to drug use and specific cases of use; indirect measure indicating the student's tendency toward drug use; archival measure which notes referrals to public agencies; observation instrument recording suspected drug related symptoms in students; and finally, a planning information measure asking students to rate sources of drug information.
Usefulness Related to CBE:	A wide variety of objectives are provided for users to select from based on existing curricular goals and local situations.
History of Development:	Research studies from the National Clearinghouse on Drug Abuse were examined to identify those measures to which experts in the field give priority. Drug information sources helped in developing items relating to knowledge of drug use, and existing drug curricula in school districts were investigated. In an attempt to secure content validity of each measure a neuropsychiatrist was consulted. Field testing has been done with a small sampling of students to determine time requisites and identify language ambiguities. A few revisions were made as necessary. Further field testing is being planned.
Related Materials:	See A 1.5 for Related Materials.
Ordering Information:	See A 1.5 for address of distributor and cost.

Title:	Measures of Self-Concept K-12 (No. 34R)
Descriptor:	A collection of 30 affective objectives and related measurement instruments to be used in group assessment.
Publication Date(s):	1972 (Revised Edition), 132 pp.
Originator:	Instructional Objectives Exchange (IOX)
Intended Users/ Purpose/ Content:	Teachers or curriculum designers wishing to specify affective objectives and measures development for purposes of group assessment. The measures in this collection are of two types: The Self-Report devices are classified according to whether they are direct or inferential measures. The developers point out that "Direct self-report measures solicit the learner's opinions in a straightforward, question-answer fashion." This type of measure is considered to have high content validity. They state further that "Inferential self-report measures are devised so that their chief purpose is camouflaged." Observational indicators are the second device used. They will vary from one measure to another depending on how closely they relate to the affective domain. The developers state that four different dimensions of the learner's self-concept should be reflected through these measures. They are: (1) family -- self-esteem through family relationships; (2) peer -- self-esteem through peer relationships; (3) scholastic -- self-esteem through scholastic endeavors; and (4) general -- comprehensive estimate of self-esteem. Direct self-report measures include items from each of the four dimensions while inferential measures center upon one of the four dimensions.
Usefulness Related to CBE:	Users may select objectives from the collection that are appropriate for the local situation. Sensitive judgment should be employed in implementing all or parts of this material with respect to community attitudes and feelings.
History of Development:	Development of the original version of self-concept measures was supported by Title III programs in 18 states. These states collectively supported a developmental project by IOX who in turn produced objectives and measures in specific affective areas. The next step involved a literature search of relevant sources on self-concept and consultation with appropriate educators. Measures were developed and field tested.

History of Development: (Cont.)

The revision of these measures focused upon two major areas of concern: (1) involving more pupils in the development trials; and (2) including a larger and more representative student population.

The first step was to expand the total number of objectives and develop a systematic data-based revision of all measures currently in the collection. An estimate was made of each item in the collection, judging its relevance to the objective in question.

Data gathered from approximately 1,000 pupils in Southern California school districts provided bases for the judgments. Many items were deleted or modified, and four new inferential measures were devised. With the cooperation of the Culver City Unified School District and the Marina Del Rey Union High School of Los Angeles Schools, there was good representation of pupil socioeconomic status -- five were considered low, five were middle, and one was high.

Three questions were formulated based on field test data:

1. Were the several direct self-report subscales and inferential self-report measures which were ostensibly measuring the same or similar constructs, actually related?
2. Were the items in a given measure performing their assessment job homogenously, that is, were they behaving at about the same way with respect to the measurement of pupil behavior?
3. Were the measures reliable in the sense of yielding a relatively stable index over time?

To answer these questions, a five-step analysis was conducted. In the first step one of the measures was eliminated because of a lack of relationship to comparable measures. An item homogeneity index was employed in the second step to determine the relationship of individual items within each group of supposedly related items. In the third step an item stability index was used to calculate the reliability of particular items. The fourth step involved a survey according to these indices, and items were deleted which did not operate as specified. The Kuder-Richardson analysis was applied to the scores after the items were excluded.

Related Materials:

See A 1.5 for Related Materials.

Ordering Information:

See A 1.5 for address of distributor and cost.

Title:	Behavioral Objectives - Test Item Bank
Descriptor:	A collection of objectives and related test items covering four subject areas in each of four grade levels.
Originator:	Marcus Lieberman, Project Director et al., Evaluation for Individualized Instruction Project, a Title III ESEA Project administered by Downers Grove Public School District 99, Downers Grove, Illinois
Intended Users:	School administrators involved in curriculum development and program evaluation, and teachers who need to specify and evaluate goals of instructional programs.
Purpose/ Content:	For both groups it will provide the basis for planning an individualized instructional program. Approximately 5,000 behavioral objectives and over 27,000 related test items have been written. The subject areas covered are: language arts, mathematics, social science, and science. Each of these subjects is treated at four levels -- primary, intermediate, junior high, and high school. The entire collection includes 17 volumes totalling 4,500 pages. Attention should be brought to the fact that each test item is directly tied to a specifically stated objective, providing accurate assessment of the program's success. With the current mass movement toward CBE in curriculum development, such a work is intended to help avoid duplication of effort in school district planning.
Usefulness Related to CBE:	There are two potential contributions which the Behavioral Objectives - Test Item Bank can make to any school district attempting to establish individualized instruction programs. First is a comprehensive list of behavioral objectives specifying what should be included in programs. Second is a set of test items which measures the degree of attainment of these objectives.
History of Development:	In the three years of development there were several three-to-nine-week workshops conducted. Objectives and test items were written in these workshops by more than 300 elementary and secondary teachers from 40 school districts in the Chicago area. The goal of the workshops was to teach teachers how to write effective behavioral objectives and test items based on the objectives. The product of their writing has been edited for content and measurement.

Related Materials:	None
Ordering Information:	Write: Institute for Educational Research 1400 W. Maple Avenue Downers Grove, Illinois 60515 (312) 971-2040 The cost of individual sets of objectives is included with each description.

The following section (A 1.6.1 to A 1.6.14) includes descriptions of the individual sets of objectives as described above.

Title:	Primary Language Arts
Descriptor:	A collection of approximately 489 behavioral objectives with 3,635 related test items for primary language arts instruction.
Publication Date(s):	1972, 375 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items that are related to the objectives. The behavioral objectives are broken down into the following subheadings: grammar and usage, phonics, mechanics, alphabet, reference, vocabulary, reading skills, critical thinking, and creative writing through literature. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $13.00 This document is also available (Order No.ED 066 498) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.2

Title: Primary Mathematics

Descriptor: A collection of 80 behavioral objectives with 574 related test items for primary mathematics instruction.

Publication Date(s): 1972, 165 pp.

Originator: Marcus Lieberman, Project Director et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: numbers and numeration, fractions, mathematical symbols, addition and subtraction of whole numbers, multiplication and division of whole numbers, measurement, bills and coins, geometry, and sets.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See A 1.6 for usefulness statement.

History of Development: See A 1.6 for history statement.

Related Materials: None

Ordering Information: See A 1.6 for address of distributor.

Cost: $6.00

This document is also available (Order No.ED 066 494) from:
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P.O. Box 190
Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.3

Title:	Primary Social Studies
Descriptor:	A collection of 50 behavioral objectives and 334 related test items for primary social studies instruction.
Publication Date(s):	1972, 37 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: social studies terminology, map reading, principles of geography, living in communities, and safety rules. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $4.00 This document is also available (Order No.ED 066 503) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.4

Title: Primary Science

Descriptor: A collection of 89 behavioral objectives with 389 related test items for primary science instruction.

Publication Date(s): 1972, 51 pp.

Originator: Marcus Lieberman, Project Director et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instruction. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: digestive system, circulatory system, skin and senses system, brain and nervous system, respiratory system, skeletal system, characteristics of animals, plants, earth science, weather, and mechanics and heat.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See A 1.6 for usefulness statement.

History of Development: See A 1.6 for history statement.

Related Materials: None

Ordering Information: See A 1.6 for address of distributor.

Cost: $3.75

This document is also available (Order No.ED 066 505) from:
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Arlington, Virginia 22210

Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.5

Title:	Intermediate Language Arts
Descriptor:	A collection of 202 behavioral objectives with 2,349 related test items for intermediate language arts instruction.
Publication Date(s):	1971, 226 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice items related to the objectives. The behavioral objectives are broken down into the following subheadings: communications, critical thinking, etiquette, literature, word study, and reference. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $10.50 This document is also available (Order No.ED 066 499) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.6

Title:	Intermediate Mathematics
Descriptor:	A collection of 279 behavioral objectives with 2,675 related test items for intermediate mathematics instruction.
Publication Date(s):	No date given, 578 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: numbers and numeration, place holders and value, expanded notation, rounding, number line, inequalities, exponential notation, fractions, decimals, bases, Roman numerals, primes and factors, whole number addition, subtraction, multiplication and division, simplification of fractions, addition, subtraction, and multiplication of fractions, addition of decimals, percent, arithmetic applications, measurement, maps, bills and coins, statistics, finite and infinite, properties, rational-irrational, sets, subsets and supersets, operations, Venn diagrams, logarithms and exponentials, graphing, functions, and inferences. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $17.00 This document is also available (Order No. ED 066 495) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.7

Title:	Intermediate Social Studies
Descriptor:	A collection of 300 behavioral objectives with 2,792 related test items for intermediate social studies instruction.
Publication Date(s):	1971, 291 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items that are related to the objectives. The behavioral objectives are broken down into the following subheadings: general social science procedures and processes (terminology), map reading (critical thinking), geography (general principles and countries), history (early man, ancient civilizations, and middle ages), and American history (Indians, early explorations, colonization of the U.S., U.S. Constitution, Monroe Doctrine, the War Between the States, immigration, and World War I). The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $10.50 This document is also available (Order No.ED 066 504) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.8

Title:	Intermediate Science
Descriptor:	A collection of 229 behavioral objectives with 1,078 related test items for intermediate science instruction.
Publication Date(s):	1972, 143 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items that are related to the objectives. The behavioral objectives are broken down into the following subheadings: characteristics of body systems (skeletal system, reproduction, health, digestive system, senses, respiratory system, circulatory system, and nervous system), characteristics of animals (insects), characteristics of plants, nature of matter, color, earth science, oceanography, weather, machines, electricity, planets and space travel, mechanics and heat, light, critical thinking, and measurement. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $7.50 This document is also available (Order No.ED 066 506) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.9

Title:	Junior High Language Arts
Descriptor:	A collection of 217 behavioral objectives with 2,701 related test items for junior high language arts instruction.
Publication Date(s):	1972, 285 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: communications, critical thinking, etiquette, grammar, history of language, literature, mechanics, and use of references. The collection is indexed to provide some specific subject access.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $10.50 This document is also available (Order No.ED 066 500) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title:	Junior High Mathematics
Descriptor:	A collection of 260 behavioral objectives with 681 related test items for junior high mathematics instruction.
Publication Date(s):	No date given, 227 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: definitions and rules, sets, numbers, arithmetic operations, modular arithmetic and bases, fractions, decimals and proportions, word problems, simplification and substitution, equations, measurement, polygons, graphs and charts, sequences, angles and trigonometry, probability, combinations and permutations, and spatial perception. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $9.50 This document is also available (Order No.ED 066 496) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.11

Title: Junior High Science

Descriptor: A collection of 152 behavioral objectives with 1,153 related test items for junior high science instruction.

Publication Date(s): 1972, 152 pp.

Originator: Marcus Lieberman, Project Director et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: respiratory system, circulatory system, excretory system, digestive system, animal cells, nervous system, skeletal system, geology, oceanography, laws of motion, space travel, weather, matter, energy, measurement, tools and techniques, and critical thinking.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See A 1.6 for usefulness statement.

History of Development: See A 1.6 for history statement.

Related Materials: None

Ordering Information: See A 1.6 for address of distributor.

Cost: $7.50

This document is also available (Order No.ED 066 507) from:
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Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.12

Title: High School Language Arts

Descriptor: A collection of 571 behavioral objectives with 2,188 related test items for high school language arts instruction.

Publication Date(s): 1972, 347 pp.

Originator: Marcus Lieberman, Project Director et al.

Intended Users/ Purpose/ Content: This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items related to the objectives. The behavioral objectives are broken down into the following subheadings: literary periods, literary techniques and devices, literary works and authors, critical thinking, rhetoric, reference, grammar, mechanics, and letters.

The collection is indexed to provide some specific subject access to the objectives.

Usefulness Related to CBE: See A 1.6 for usefulness statement.

History of Development: See A 1.6 for history statement.

Related Materials: None

Ordering Information: See A 1.6 for the address of the distributor.

Cost: $12.00

This document is also available (Order No.ED 066 501) from:
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Cost: Current price information is available in the latest issue of Resources in Education.

OUTCOMES -- AVAILABLE MATERIALS A 1.6.13

Title:	High School Mathematics
Descriptor:	A collection of 717 behavioral objectives with 2,767 related test items for high school mathematics instruction.
Publication Date(s):	1972, 802 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition it supplies teachers with multiple choice test items that are related to the objectives. The behavioral objectives are broken down into the following subheadings: angles, computers and data processing, conics, construction, definitions, distance formulas, equations, exponents, fractions, decimals and proportions, functions and relations, graphing, inequalities, measurement, numbers, points, lines and planes, polygons, polynomials, primes and factors, probability, combinations and permutations, radicals, proofs, logic, theorems and axioms, sequences, progression and series, sets, simplification, slope-intercept, trigonometry, vectors, and word problems. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of the distributor. Cost: $20.25 This document is also available (Order No.ED 066 497) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title:	High School Science
Descriptor:	A collection of 297 behavioral objectives with 855 related test items for high school science instruction.
Publication Date(s):	1972, 305 pp.
Originator:	Marcus Lieberman, Project Director et al.
Intended Users/ Purpose/ Content:	This is a comprehensive list for teachers to use in designing individualized instructional programs. In addition, it supplies teachers with multiple choice test items that are related to the objectives. The behavioral objectives are broken down under the two major areas of life science and physical science, as follows: (1) Physical Science -- measurement, models and problem solving, charts and graphs, mechanics, energy, atomic structure, heat, waves, light, electricity and magnetism, gases, moles, structures, formulas and bonding, solutions and solubility, acids and bases, equations and equilibrium, oxidation-reduction, reactions and rates, electrolysis, electro-chemical cell, and qualitative analysis; and (2) Life Science -- capillarity, diffusion and osmosis, electron transport system, enzymes, genetics, organic compounds, microscope, photosynthesis, plant function and structure, plasmolysis, problem solving, reproduction, and drugs. The collection is indexed to provide some specific subject access to the objectives.
Usefulness Related to CBE:	See A 1.6 for usefulness statement.
History of Development:	See A 1.6 for history statement.
Related Materials:	None
Ordering Information:	See A 1.6 for address of distributor. Cost: $12.00 This document is also available (Order No.ED 066 508) from: ERIC Document & Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: Current price information is available in the latest issue of Resources in Education.

Title: Sourcebook of Training Products in Instructional Planning and Management

Descriptor: A source of information about training systems for instructional planning and management.

Publication Date(s): 1975, 93 pp.

Originator: Nancy McCutchan, Rita Fernandez, and Jean Coleman, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: The authors of this sourcebook write that it "is designed for all who have a stake in selecting and conducting instructional planning and management training activities -- teachers, department heads, principals, curriculum specialists, assistant superintendents, superintendents at preschool, elementary, and secondary school levels."

Purpose/ Content: This sourcebook is designed to help users answer various questions about instructional planning and management training systems. Some questions the authors have designed the product to help answer are: "What is instructional planning and management? What training programs and resources are available to develop staff in these areas? What are the major characteristics of the available products? Which ones seem best suited to local training needs?"

The sourcebook has three major sections. "Orientation," the first section, describes what instructional planning and management is, based on experience and research of the Far West Laboratory. This section also suggests guidelines to help the user review and select training materials.

In the second section, "Program Reports," 15 program packages designed to meet specific staff development or training needs are presented.

"Training Resources," the third section, is an annotated list of supplementary materials that the user may select from to complement or enrich an instructional planning and management training system.

The descriptions of training programs focus on the following categories:

- content focus
- type of product
- availability

Purpose/ Content: (Cont.)

- developer
- distributor
- target audience
- goals and objectives
- materials and equipment
- how to use
- trainee assessment
- product development and evaluation
- cost
- comment

Usefulness Related to CBE:

Several of the products described in this collection appear to have potential for training staff to be effective in a CBE context. The Sourcebook thus appears to be a useful source from which to choose staff development activities as part of implementing or supporting a a CBE program.

History of Development:

Five criteria were used by the developers of this collection to screen products:

1. the intent of the product must be to provide or support training activities
2. the training must be designated for middle management school personnel at preschool, elementary, and/or secondary levels whose primary function may be (a) teaching, (b) school administration, (c) curriculum development, or (d) district administration.
3. the content of the training program or training support tool must be in instructional planning and management
4. the product must be available for distribution on a national scale and/or replicable through use of guidelines, information consultants, site visitations, or other comparable means
5. the product must have been placed on the market within the last five years.

Of all available products, only products that met all five criteria listed above were chosen for inclusion.

Related Materials:

None

Ordering Information:

The Sourcebook is available from:

Far West Laboratory for Educational Research and
Development
1855 Folsom Street
San Francisco, California 94103

Cost: $3.95 (prepaid)

Title: Clark County Curriculum Guides

Descriptor: Twelve teaching guides consisting of a list of behavioral objectives, suggested teaching methods, and media, covering eight specific areas of the curriculum.

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Teachers who are concerned with specifying objectives within a curriculum area and curriculum specialists wishing to coordinate school or district planning.

Purpose/ Content: In developing the curriculum guides, the school district was attempting to provide schools with a starting point for writing objectives. The purpose was not to have it seen as a mandate, but simply to provide a philosophy of objectives-based instruction. Teachers in the district were not to think that this was a suggested approach to instruction. Instead, they were informed that students would be tested for competencies as stated in the objectives.

Usefulness Related to CBE: General behavioral objectives are written so that the teacher may rewrite them specifically for a given program. The guides are not presented as units of work for teachers. The ideas and suggestions which accompany each guide are intended for use based on individual needs and available resources.

History of Development: The goal of the district was initially to create "principal autonomy." After a committee prioritized the curriculum areas for which objectives were to be written, several task force groups were formed with representatives from each school in the district. A chairman was appointed and given one year release time to do the writing for the group. Periodic visits were made by consultants during the development.

Field testing was accomplished through "guide extension." This involved selecting a group of objectives from the guide and designing instruction based on these objectives for one classroom.

In addition, a reaction committee was similarly formed and asked to submit statements of opinions and suggestions. There is no documentation available describing the method used to gather data.

Related Materials: None

Ordering Information: Write: Information Services Coordinator
Clark County School District
2832 East Flamingo Road
Las Vegas, Nevada 89121
(702) 736-5011

Cost: The cost of individual sets of objectives is included with each description.

The following section (A 1.8.1 - A 1.8.10) includes descriptions of the individual curriculum guides as described above.

OUTCOMES -- AVAILABLE MATERIALS A 1.8.1

Title: Drug Abuse Education

Descriptor: A K-12 curriculum guide outlining component ideas, suggested methodology, and multimedia resources for drug abuse education.

Publication Date(s): 1969, 213 pp. + biblio.

Originator: Department of Curriculum Services, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: Three major themes are identified: (1) people -- children, students and citizens of the future; (2) individual responsibility for decision making; and (3) information necessary to decision making.

The authors stress that drug abuse education is not merely acquiring data, but it includes "the development of habits, attitudes, relationships, appreciations, alternative behaviors, self-concept, self-discipline, [and] self-control [which require] an analysis of data."

The guide is divided in four sections: levels K-3, levels 4-6, levels 7-9, and levels 10-12. Each section is prefaced by a list of general behavioral objectives. Information in each section consists of a list of component ideas, followed by teaching methodology(ies) to be incorporated in the teacher's present plans, and appropriate resources. Fact sheets providing readily available data to assist in planning are included.

An extensive bibliography consisting of books, pamphlets, school syllabi, serials, journal articles, films, subscriptions, and resource agencies is included to assist in planning. A glossary, guide to common drugs, state statutes (Nevada), and regulations (Clark County) are provided in appendices.

Usefulness Related to CBE: See A 1.8 for usefulness statement.

History of Development: Very little information is given regarding the development of this guide. It does appear to be a cooperative effort of a curriculum task force made up of district teachers and other contributors from the community and school district.

During early stages of development, district teachers provided reactions to the project which in turn served as guidelines.

Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $5.00

OUTCOMES -- AVAILABLE MATERIALS A 1.8.2

Title: EMR Guide K-12

Descriptor: A guide designed to assist teachers of the educable mentally retarded in fitting the educational tasks/objectives to students' needs.

Publication Date(s): No date given, 395 pp.

Originator: Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: A curriculum model is used as a framework in this guide and it incorporates several aspects which in turn work together as a whole. The following are concerns which were considered relevant to writing objectives for EMR's:

1. Social Occupational Competence -- this requires the ability to think critically and act independently.
2. Instructional Areas -- color coded and developed on a K-12 continuum.
   a. learning prerequisites -- psychomotor growth, perceptual training, following directions, and orientation to self.
   b. communication -- reading, writing, speaking, and listening skills.
   c. computational skills -- mathematics, time, measurement, and monetary value.
   d. social living -- social awareness, acceptability, and mobility.
   e. functional science -- self needs, basic health, grooming, nutrition, and basic household operations.
   f. occupational exploration -- dexterity skills, occupational information, orientation to the world of work, and actual on-the-job training.
3. Behavioral Objectives -- define what, how well, and under what circumstances the student will perform. Objectives are written for each of the concepts taught, and include suggested teaching techniques and media.

Other considerations are discussed in the introduction in order to assist the user in developing effective instruction. These areas include: evaluation, methodology, diagnosis, prescription, and individualizing instruction.

A textbook catalog is arranged according to instructional area and provided at the end of the guide. Within each area, information on the title, publisher, copyright, and price is included.

Usefulness Related to CBE: See A 1.8 for usefulness statement.

History of Development: This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants.

History of Development: (Cont.)	A media selection committee provided the list of media suggestions, and a reaction committee composed of representative district teachers provided feedback for revisions, additions, and deletions.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $6.00

OUTCOMES -- AVAILABLE MATERIALS A 1.8.3

Title: Interim Curriculum Guide: Music K-12

Descriptor: A teaching guide developed as a precursor to an in-depth study for an articulated K-12 music curriculum guide.

Publication Date(s): No date given, 73 pp.

Originator: Music Interim Curriculum Committee, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: The intent of developers was to "focus on basic experiences and involvement with the essential elements of music throughout both the elementary and secondary levels."

The guide is divided into eight sections or "conceptual areas:" melody, harmony, rhythm, tempo, form, dynamics, tone color, and style. A ninth section provides behavioral objectives in the affective domain.

Each of the conceptual areas contains concepts, behavioral objectives, teaching materials, and methods. The guide as such is not complete, but is intended to provide examples only.

Usefulness Related to CBE: See A 1.8 for usefulness statement.

History of Development: A committee of three educators selected by the Nevada Music Educators Association wrote the guide, which is intended to provide guidelines for the schools while an articulated guide is being developed.

Related Materials: None

Ordering Information: See A 1.8 for address of distributor.

Cost: $3.00

OUTCOMES -- AVAILABLE MATERIALS A 1.8.4

Title:	Mathematics Curriculum Guide K-6
Descriptor:	A guide for K-6 mathematics focusing on the sequential concepts necessary to build a sequential mathematics program.
Publication Date(s):	1967 (Second Printing), 140 pp.
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	The developers state that the primary purpose of this guide is to provide a framework which will facilitate planning appropriate mathematics programs in schools. This is stated more specifically as: (1) identify and classify major mathematical concepts and indicate scope and sequence of content in grades K-6; (2) provide articulation; (3) relate three new textbook series to topics in the guide; and (4) provide for smooth transition to the new textbook series. The guide is arranged by grade level with six major concepts or topics and related content items listed in each. These are called "strands" and include the following: Number, Numeration, Operations, Geometry, and Measurement. The sixth strand, Problem Solving, does not list specific content items but treats two aspects: (1) developing a strategy for attacking problems; and (2) applying mathematics to the real world. For each content item, a specific objective(s) is written in terms of "observable student behavior." The three newly adopted textbook series are listed as they relate to the content and behavioral objectives. These series are: Addison-Wesley, L.W. Singer, and American Book Company. The strands are color coded so that the teacher may quickly refer to the same strand on any level which helps make the spiraling effect clearer. Spiraling refers to the several approaches to and applications of an increasingly difficult topic through the elementary years.
Usefulness Related to CBE:	See A 1.8 for usefulness statement.
History of Development:	An in-service course was conducted during the spring of 1967 as a cooperative effort of Nevada Southern University and Clark County School District. The participants reviewed the work and made critical comments as well as

History of Development: (Cont.)	suggestions for additions to and deletions from the behavioral objectives.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $5.00

OUTCOMES -- AVAILABLE MATERIALS A 1.8.5

Title: Physical Education Curriculum Guide K-6

Descriptor: A guide for elementary teachers using fundamental approaches to physical education through the development of behavioral patterns.

Publication Date(s): 1971, 177 pp.

Originator: Department of Instructional Services, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: The written behavioral objectives emphasize the psychomotor domain, but also include the social, intellectual, and emotional aspects. These areas are defined as follows:

- Physical -- development of various organic systems as well as development of neuromuscular skills.
- Social -- development of qualities (e.g., understanding, fellowship, and cooperation) which help an individual relate well to others and self.
- Emotional -- cultivation of self-understanding, self-respect, self-reliance, and self-control.
- Intellectual -- planning, timing, judgment, and recall are essentials of physical activity requiring mental assistance.

The information in this guide is arranged by grade levels K-3 and 4-6, and allows several approaches to planning. Some of these approaches include:

1. Preparing a behavioral objective and selecting an activity for actual practice.
2. Preparing skill objectives for a sport and identifying necessary behavioral objectives.
3. Taking one strand (a major area, e.g., Locomotor-Running) and developing a unit, selecting behavioral objectives and suggested activities.
4. Moving through each strand, preparing a behavioral objective every couple of days.
5. Utilizing levels of a strand by determining performance levels for each class from the least difficult to the most difficult behavioral objectives.
6. Furnishing the students with various activities and games which teach individual skills of each strand.
7. Spending a shorter initial period of time on a skill and returning to it later in the year.

A series of tests (grade levels) directly related to the content are included. A Cross Reference Guide outlines athletic skills to be covered and identifies the location of grade levels, page number, and behavioral objectives for each. A multimedia listing which includes support materials for major concepts concludes this guide.

Usefulness Related to CBE:	See A 1.8 for usefulness statement.
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee assisted with the media listing, and a reaction committee composed of representative district teachers provided feedback for revisions, additions, and deletions.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $5.00

Title: Physical Education Curriculum Guide 7-12

Descriptor: A guide for teachers using fundamental approaches to physical education through the development of behavioral patterns.

Publication Date(s): 1971, 230 pp.

Originator: Department of Instructional Services, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: The written behavioral objectives emphasize the psychomotor domain, but also include the social, intellectual, and emotional aspects. These areas are defined as follows:

- Physical -- development of various organic systems as well as development of neuromuscular skills.
- Social -- development of qualitites (e.g., understanding, fellowship, and cooperation) which help an individual relate well to others and self.
- Emotional -- cultivation of self-understanding, self-respect, self-reliance, and self-control.
- Intellectual -- planning, timing, judgment, and recall are essentials of physical activity requiring mental assistance.

The information in this guide is arranged by grade levels 7-9 and 10-12, and allows several approaches to planning. Some of these approaches include:

1. Preparing a behavioral objective and selecting an activity for actual practice.
2. Preparing skill objectives for a sport and identifying necessary behavioral objectives.
3. Taking one strand (a major area, e.g., Locomotor-Running) and developing a unit, selecting behavioral objectives and suggested activities.
4. Moving through each strand, preparing a behavioral objective every couple of days.
5. Utilizing levels of a strand by determining performance levels for each class from the least difficult to the most difficult behavioral objectives.
6. Furnishing the students with various activities and games which teach individual skills of each strand.
7. Spending a shorter initial period of time on a skill and returning to it later in the year.

A series of tests (grade levels) directly related to the content are included. A Cross Reference Guide outlines athletic skills to be covered and identifies the location of grade levels, page number, and behavioral objectives for each. A multimedia listing which includes support materials for major concepts concludes this guide.

Usefulness Related to CBE: See A 1.8 for usefulness statement.

History of Development: This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee assisted with the media listing, and a reaction committee composed of representative district teachers provided feedback for revisions, additions, and deletions.

Related Materials: None

Ordering Information: See A 1.8 for address of distributor.

Cost: $5.00

Title: Reading and the Kindergarten Child

Descriptor: A teaching guide describing reading as a three-stage process in kindergarten.

Publication Date(s): No date given, 34 pp. + a separate 64 pp. appen.

Originator: Division of Instruction and Curriculum, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: In developing the guide, consideration was given to physical, emotional, social, and intellectual development.

The developers state that classroom reading instruction must be adaptable for use with individual students. In order to provide flexibility, the instruction in this guide is divided into three stages: Stage I -- readiness for reading is developed; Stage II -- initial stage in learning to read; Stage III -- fundamental reading attitudes, habits, and skills.

The three-column format used in the guide lists the reading skills, instructional objectives, and a reference to the appendix where activities are suggested to achieve the given instructional objectives.

The media section in the guide lists support materials for each of the stages. A selection committee reviewed a wide range of materials and different approaches in teaching beginning reading. They evaluated and recommended media based on criteria showing it to be useful and appropriate for learners in the program.

Usefulness Related to CBE: See A 1.8 for usefulness statement.

History of Development: This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee provided the list of media suggestions.

Related Materials: None

Ordering Information: See A 1.8 for address of distributor.

Cost: $6.00

Title:	Reading Guide and Selected Multimedia 1-12
Descriptor:	A guide for reading and curriculum specialists outlining a developmental reading program on a nongraded basis.
Publication Date(s):	No date given, 218 pp. + biblio. + a separate 162 pp. appen.
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	The developers point out that "skills (as written in this guide) are not taught in isolation but rather in tandem, as the needs of the student dictates. Grade levels should be ignored and instruction in a skill should begin at the point where it is necessary, regardless of the age of the student or the level of the skills." The guidelines are written in succession from grades one through twelve. They are color-coded by skills as follows: Listening Skills, Word Recognition Skills, Comprehension Skills, and Reading and Study Skills. An indication is given of when skills are introduced for lower, middle, and upper grades. General behavioral objectives and teaching suggestions are written for each skill and subskill. The appendix contains various word lists, informal diagnostic tests, a skills checklist, an interest inventory, book lists, and articles. This material was extracted from publications by reading teachers who found it helpful.
Usefulness Related to CBE:	See A 1.8 for usefulness statement.
History of Development:	This guide was developed through the cooperative efforts of a curriculum task force and a group of consultants. A media selection committee provided the list of media suggestions, and a reaction committee composed of representative district teachers provided feedback for revisions, additions, and deletions.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $6.00

OUTCOMES -- AVAILABLE MATERIALS A 1.8.9

Title:	Social Science Study Unit: A Multiethnic Approach
Descriptor:	A compilation of nine units of study relating to interpersonal relations and intercultural understanding for grades K-8.
Publication Date(s):	1973, 313 pp.
Originator:	Department of Curriculum Services, Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	Three major goals for students provide the basis of this course of study. These state that students will: (1) see themselves as self-actualized persons living among many kinds of people; (2) develop empathy in understanding ethnic groups; and (3) think seriously and analytically about ethnic groups and their contributions. The concepts in this document have been taken from the Clark County Social Science guide (See A 1.8.10). Vehicles used to teach these concepts are ethnic in nature, focusing on Black-American, Mexican-American, Native-American, and Oriental-American. Units at levels K-3 emphasize similarities of ethnic groups. Units at levels 4-7 focus on individual cultural groups. Level 8 is multicultural, exploring conflict, expression, and resolution. This compilation is designed for administrative use, library reference, and teachers.
Usefulness Related to CBE:	See A 1.8 for usefulness statement.
History of Development:	This course of study was the cooperative effort of a group of five elementary and junior high teachers in the district, with two other consulting teachers. There is no indication that field testing occurred or is planned.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $5.00

Title: Social Science

Descriptor: A curriculum guide and suggested media for grades 10-12 using the inquiry approach in all social science disciplines.

Publication Date(s): 1969, 132 pp.

Originator: Department of Curriculum Services, Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: The considerable introductory material in this guide includes: definitions of social science core disciplines, a glossary of terms, using inquiry in the social studies, the teaching-learning process, and using behavioral objectives.

There are three long-range objectives in this guide:

1. Students do not select immediate solutions to the problem but proceed to search for meaning in the problem and explore the consequences of alternate actions available to them. Students develop the ability to use scientific and democratic processes as problem-solving tools.
2. Students develop the ability to locate, identify, relate, and use empirical data drawn from social and behavioral sciences (facts, concepts, and generalization) in the process of social inquiry and problem solving.
3. In a seminar meeting the students must exhibit the ability to participate in open and respectful discussion of their premise through the presentation of their question, the formulation of their hypothesis, and the development of a conclusion. Their group in turn reacts with a critical analysis of the presentation.

The social science disciplines included in this guide are sociology, cultural anthropology, social psychology, political science, economics, history, geography, and philosophy.

The information given for each of these disciplines is arranged in five columns starting with generalizations which provide the planning structure. Each generalization is broken down by major concepts and subconcepts, and behavioral objectives are written for each listed subconcept.

A list of suggested multimedia is provided for each of the disciplines.

Usefulness Related to CBE:	See A 1.8 for usefulness statement.
History of Development:	This project was the cooperative effort of several groups of teachers in the Clark County School District. The curriculum task force was responsible for development of the guide, while evaluation and selection of materials was done by another group. Two reaction committees were formed, one which reacted to the working copy and another which wrote revisions. There is no explanation of the method used for field testing or the data gathered.
Related Materials:	None
Ordering Information:	See A 1.8 for address of distributor. Cost: $5.00

OUTCOMES -- AVAILABLE MATERIALS A 1.9

Title: Appendices G, H, I, and J to the Final Report of the Evaluation Service Center for Occupational Education

Descriptor: Four separately published appendices describing objectives and test items in four areas of occupational education.

Originator: Evaluation Service Center for Occupational Education (ESCOE), Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users: High school occupational education teachers and others interested in the development of a systematic objectives-oriented approach to occupational education programs.

Purpose/ Content: The purpose of the four appendices is to provide information about the selection of objectives and test items in four areas of occupational education. Each appendix contains descriptions of evaluation and field-testing procedures, including discussions of:

- development and field test procedures
- item bank descriptions
- recommended analysis procedures
- uses

Usefulness Related to CBE: Procedures in developing objectives and objectives-based test items can be useful to the CBE practitioner with curriculum development responsibilities. The lists of objectives and test items also can be useful in helping with the development of occupational education instructional programs.

History of Development: The objectives and test items were developed as part of the work of the Evaluation Service Center for Occupational Education (ESCOE), funded by the states of Massachusetts and New York to:

1. Develop a bank of behaviorally stated objectives in selected areas of study.
2. Train facilitators and teachers in participating LEA's to describe selected areas of the curriculum by behavioral objectives. This includes training in the rationale, uses, and implementation of objectives as well as writing, classifying, editing, and synthesis of behavioral objectives.
3. Develop a bank of test items and procedures directly related to objectives in these selected areas of study.
4. Create a computer input and feedback (retrieval) system.
5. Develop a model for synthesizing objectives.

History of Development: (Cont.)

6. Create a feedback loop between ESCOE and LEA's.

Related Materials:

None

Ordering Information:

Copies of the final report and separate appendices are available upon request from:

Massachusetts Department of Education
Director of Research Coordinating Unit
Division of Occupational Education
182 Tremont Street
Boston, Massachusetts 02111

or

New York State Department of Education
Director of Research Coordinating Unit
Bureau of Occupational Education Research
Albany, New York 12224

No costs are indicated.

The following sections (A 1.9.1 - A 1.9.4) describe each of the separately published appendices.

Title:	Appendix G: Criterion-Referenced Item Banking in Electronics
Descriptor:	A report listing 162 objectives and 114 test items, including the history of development of the materials.
Publication Date(s):	June 1972, 188 pp.
Originator:	William Phillip Gorth and Hariharan Swaminathan, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst
Intended Users/ Purpose/ Content:	Intended users of this document are occupational education teachers, curriculum developers, and evaluators. The purpose of the report is to present the results of development efforts in criterion-referenced item banking in electronics. The report contains a history of development work and lists of objectives and items.
Usefulness Related to CBE:	See A 1.9 for usefulness statement.
History of Development:	Locally generated objectives were combined into synthesized objectives (SYNOBS) by ESCOE. Test developers reviewed these SYNOBS and rewrote them as appropriate. After initial writing of items based on the objectives, items were reviewed by subject specialists, teachers, and students. Then a final review, undertaken by the test developers, was made. Booklets containing 162 objectives listing 114 items show the results of development efforts. A Guide to Test Construction for teachers is included in this appendix. No data on field testing are included.
Related Materials:	None
Ordering Information:	See A 1.9 for address of distributor and cost.

Title: Appendix H: Performance Test Development in Machine Shop

Descriptor: A report describing field testing procedures and results of test items in machine shop.

Publication Date(s): 1972, 23 pp.

Originator: Jim C. Fortune, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users/ Purpose/ Content: Intended users of this report are occupational education teachers, curriculum developers, and evaluators.

The purpose of the report is to describe developmental efforts in test construction for a performance-based machine shop curriculum.

The report contains the following sections:
- Conceptual Scheme for Development
- Test Description
- Field Testing
- Revision Recommendations

Usefulness Related to CBE: See A 1.9 for usefulness statement.

History of Development: Synthesized objectives (SYNOBS) were developed from LEA-generated terminal behavioral objectives. Test items were constructed in a one-to-one correspondence to SYNOBS. A machine shop teacher and a psychometrician collaborated on the formulation of test items. A pilot run of the first test tested only about 1/3 of the curriculum. The test was expanded to cover about 75% of the curriculum and then was field tested twice in three schools with several levels of students. Analysis of results indicated to developers that the purposes of field testing were achieved. Revisions for some of the items were suggested, as was the need for better instructions for timing and grading individual performances. The appendix concludes with suggestions for further development of the tests.

Related Materials: None

Ordering Information: See A 1.9 for address of distributor and cost.

Title: Appendix I: Performance Test for Auto Mechanics

Descriptor: A report describing development procedures and test results in auto mechanics.

Publication Date(s): June 1972, 61 pp.

Originator: Jim C. Fortune, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users/ Purpose/ Content: Intended users are occupational education teachers, curriculum developers, and evaluators.

The purpose of the report is to present 47 test items in auto mechanics and to describe the developmental procedures by means of which they were chosen and tested.

The report contains the following sections:
- Introduction
- Test Development
- Test Unit Materials
- Test Item Bank
- Administration and Scoring Procedures
- Field Review and Recommendations

Usefulness Related to CBE: See A 1.9 for usefulness statement.

History of Development: After initial review of SYNOBS proved problematic, a search of existing performance tests in auto mechanics was undertaken. This search yielded useful material, however, equipment upon which the tests could be performed was lacking in the LEA's and prohibitively expensive. Developers then turned towards standard mechanics tasks as a starting point for test development. Equipment that could test accomplishment of standard tasks could be constructed. Once test-like events were described, developers compared them to SYNOBS and found a one-to-one correlation, thus enabling the test events to be used within the ESCOE system. From the above work, an auto mechanics test item bank was developed in a one-to-one correspondence with the synthesized objectives. Administration and scoring procedures were also developed.

Field review of this test was carried out, but no field testing. Developers felt assured of the feasibility of constructing units such as those presented in the report. Field testing is recommended, conclude the developers, "but only after several testing units are constructed."

Related Materials: None

Ordering Information:	See A 1.9 for address of distributor and cost.

Title: Appendix J: Woodworking Objective and Test Item Bank

Descriptor: A report describing procedures and results of the development of objectives and test items in woodworking.

Publication Date(s): June 1972, 76 pp.

Originator: Ronald K. Hambleton and Francis Olszewski, ESCOE, Center for Occupational Education, School of Education, University of Massachusetts, Amherst

Intended Users/ Purpose/ Content: Intended users of this report are occupational education teachers, curriculum developers, and evaluators.

The purpose of the report is to describe the procedures by means of which 169 woodworking objectives were developed. Information about the development of test items is also presented.

The report contains an objective and test item bank, along with a list of materials needed to test each objective. Sample tests and evaluation sheets constructed from the objective and test item bank are included.

Usefulness Related to CBE: See A 1.9 for usefulness statement.

History of Development: Since many of the SYNOBs in woodworking were found by developers to cover several different skills, it was impossible to develop a single performance task for each SYNOB. Developers agreed to rewrite each SYNOB into as many specific skills as necessary. After reviewing SYNOBs for quality and appropriateness, they were rewritten into 165 specific objectives. A performance task then was written for each of the 165 objectives. Resulting materials were reviewed by five woodshop teachers on two different occasions. Suggestions from this review were used to modify materials. A representative sample of 54 objectives was tested with more than 60 students in the 9th and 10th grades in three schools. Teachers assisted in the selection of objectives covered in the test. Data from the tests are not presented, although developers report that "the results are encouraging."

Related Materials: None

Ordering Information: See A 1.9 for address of distributor and cost.

Title:	CSE Elementary School Evaluation Kit: Needs Assessment
Descriptor:	A kit providing a systematic and objective means for collecting data and selecting goals based on community priorities.
Publication Date(s):	1972
Originator:	Ralph Hoepfner, Paul A. Bradley, Stephen P. Klein, and Marvin C. Alkin, Center for the Study of Evaluation (CSE), UCLA Graduate School of Education
Intended Users:	Primarily for elementary school principals.
Purpose:	Goals: The authors, "recognizing the importance of the trend toward the use of community-derived information in the needs assessment process, designed the Kit in such a manner as to make community involvement in needs assessment as meaningful, explicit, and systematic as possible." Objectives: There are no specific objectives stated, however, the Kit is designed to answer the following evaluation questions: 1. How do you determine what the goals of the school are or should be? 2. Is the school attaining the stated goals? 3. What are the implications for program improvement based on data of goal attainment? 4. How can policy decisions be made which also consider individual school values?
Content:	Procedures are described which illustrate how the questions shown above can be answered. Chapter 1 is an introduction. The other four chapters are instructional: o Chapter 2 -- explains how to go about selecting data on a school's perceived needs. o Chapter 3 -- provides a process to help the principal choose the most appropriate test for purposes of stated goals. o Chapter 4 -- two procedures are described for administration. o Chapter 5 -- a rationale is given for prioritizing student output goals.
Usefulness Related to CBE:	The procedures described in the Kit provide the elementary school principal with essential elements for sound educational policy decision making. Other school administrators may find it useful in surveying strengths and weaknesses of students in different schools in the district.

History of Development: The development was a cooperative effort including the Center for the Study of Evaluation, the Institute for Development of Educational Activities, and California Elementary School Administrators Association.

A team of experts from many fields consulted with superintendents and elementary school principals to decide what and how materials should be presented. The authors go on to say that "school superintendents, principals, research personnel, teachers, parents, and students throughout the United States also participated in the many field tryouts of the kit's materials and procedures to ensure both their feasibility and their utility."

No other data relative to field testing nor specific information relative to revision or changes is presented.

Main Activities: The specific steps involved in a needs assessment are discussed in detail and materials are provided to facilitate implementing the recommended procedures. The activities in the major steps of the process are:

1. The principal gathers information relative to the school's perceived needs.
2. The principal selects appropriate tests which measure stated goals.
3. The principal interprets test scores and relates the data to similar school situations.
4. The principal uses a decision model to produce critical need statements based on data gathered in Step 1.

Provisions for Use: Format: A product for use by individual principals or superintendents.
Personnel: Consultants or administrators are not required.
Product Components:

- Guidebook -- provides rationale for needs assessment and step-by-step procedures.
- Three sets of support materials for providing critical information to be used:
  a. the principal's goal rating forms
  b. the teachers' and parents' goal rating forms
  c. the parents' goal rating questionnaire

Time Span: The process requires three weeks of the principal's time and two hours for each teacher, parent, or community member who participates in goal rating.

Conditions of Use: The authors hasten to caution any principal who might see the kit as doing all the work. Successful use of the kit will depend on commitment of the principal's time and effort. It is necessary to examine the kit closely before attempting to use it.

Related Materials: Five other kits are being developed by CSE, based upon the five-stage framework of evaluation as defined by the Center.

Ordering Information:

Write: Allyn and Bacon, Inc.
Longwood Division
470 Atlantic Avenue
Boston, Massachusetts 02210

Cost:

Complete Kit:	$114.95
Includes:	
1 Guidebook	
24 Principal Goal Rating Forms (consumable)	$ 6.95/set of 24
48 Parent Goal Rating Questionnaires (consumable)	$ 8.95/set of 48
50 Goal Card Tally Sheets (consumable)	$ 6.95
10 sets of Rating Mats and Goal Cards (reusable)	$ 29.95

One kit is needed for each school.

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

OUTCOMES -- SELECTION PROCEDURES A 2.2

Title:	Pupil-Perceived Needs Assessment Package
Descriptor:	A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils.
Publication Date(s):	March 1975
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	Superintendents, assistant superintendents, building principals, curriculum or evaluation specialists, and teachers.
Purpose:	Goals: The goal of the product is to enable school administrators and teachers at the district or building level to plan, conduct, and report an assessment of school needs as perceived by the pupils. Objectives: It provides school staff with the knowledge and skills necessary to perform the specific tasks of such a project.
Content:	The product emphasizes the knowledge and skills necessary to plan, conduct and report an assessment of school needs as perceived by pupils. These skills allow the user to develop an indicator to use in collecting information from pupils, administer the indicator to pupils, and analyze and interpret results.
Usefulness Related to CBE:	Needs assessment is an important aspect of goal setting. This is one of the few products that addresses needs assessment from the student's perspective.
History of Development:	Preliminary evaluation of the product involving school personnnel of varied training and experience from several different school districts indicates that the product can be generalized and transported. Further evaluation will address this issue in greater detail.
Main Activities:	Not available at this time.
Provisions for Use:	Format: Five individually bound units; a supplement for sampling; and a cassette tape. Personnel: The product can be used by individuals or small groups (five to eight recommended). No previous experience in pupil-perceived-needs assessment is required. The services of an evaluator may be helpful. If the needs assessment project is a group effort, one person should be designated project manager.

Provisions for Use: (Cont.)

Product Components: Worksheets, exercises, checklists, information sheets.
Time Span: The time required to study and use the materials is approximately eight hours. The length of an assessment project will vary depending upon the scope and depth of the assessment desired by the user.

Conditions of Use:

No specially trained individuals are required for a district to use the product, whether at the district, building, or classroom level. Although it can be used by one person working alone, it is recommended that a group of five to eight people work together. It is helpful if one member of the group is knowledgeable in interpreting evaluation data.

No external assistance or special equipment is necessary. Data may be analyzed manually or by computer, depending on the scope of the assessment and the computer service available.

Related Materials:

None

Ordering Information:

Copies of this product are available from:

Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $25.00 per copy. One copy per user is needed.

This description was adapted from *Catalog of NIE Education Products* and *Educational Dissemination and Linking Agent Sourcebook*.

Title: Project Management Executive Orientation

Descriptor: A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

Publication Date(s): May 1973; November 1975

Originator: C. Peter Cummings and Desmond L. Cook, Administering for Change Program, Research for Better Schools, Inc. (RBS), and Educational Program Management Center, The Ohio State University

Intended Users: Although the training product is intended primarily for top-level administrators, it can also be valuable to school board members and selected community members.

Purpose: The product emphasizes the benefits of project management for a school district and the role of top-level administrators in supporting project activities.
Goals: The goal of the product is to orient top-level school administrators to the use and implementation of project-management procedures for improving the effectiveness of many school operations or activities.
Objectives: The major objectives are: (1) To provide top-level administrators with basic knowledge of the project-management process; (2) To inform top-level administrators of the benefits of the project-management approach for a local school district; (3) To acquaint top-level administrators with the kind of support and assistance that they and functional departments need to provide the project manager and the ongoing project operations; and (4) To inform top-level administrators where additional information and assistance regarding project management and its implementation in local education agencies may be found.

Content: Topics included are: (1) definition of a project and project management; (2) examples of the application of project-management procedures; (3) adapting project management to school operations; and (4) top-management support and coordination of projects.

Usefulness Related to CBE: Skills of project management that are emphasized in this product can be useful to school administrators who are installing a CBE program in their schools.

History of Development: Particular attention has been given to the quality of the product's content and instructional process. Product development involved the steps of analysis, conceptualization, design, construction of prototype, pilot testing

History of Development: (Cont.) and revision, and summative evaluation (1973). The steps of analysis, conceptualization, and design involved a task analysis of project management in schools, a review of literature on project-management and instructional-systems design, and consultation with experts in project-management and instructional-systems design. The construction of the prototype involved the developer and an external project-management expert in the writing of lesson material. The pilot testing, field testing, summative evaluation, and revisions of the product involved top-level district administrators and many other knowledgeable educators. This developmental process has been carefully documented.

Further, the product has been used by school districts of various sizes in different regions of the United States with comparable results in terms of users understanding the concept of project management, its benefits for school districts, and their role in supporting project efforts. Some used the product without the assistance of the developer and achieved the same positive results.

Steps have been taken to assure that the product excludes social bias. During the pilot and field testing of the product, school district personnel brought incidences of bias to the attention of the developers. As a result, changes were made to both the audiovisual and written materials.

Main Activities: The audiovisual component requires one hour of viewing time. Users may choose to read the manual individually or hold a morning or afternoon group workshop in which they view the audiovisual material and discuss questions raised in the manual regarding the implications and adaption of the ideas presented.

Provisions for Use: Format: Manual (required) and 12 filmstrips and tapes (optional).
Personnel: The product can be used by a school superintendent or top-level administrators without any previous training in project management. Districts may choose, however, to obtain consultation or assistance from the developer for the orientation of follow-up activities.
Product Components: Instructional materials include a manual and 12 filmstrips with synchronized tape cassettes. The manual may be used alone, the filmstrip and tape cassettes may be used alone, or both may be used together.
Time Span: The time required to study the materials varies from one to four hours, depending on the study options selected.

Conditions for Use: The module is completely self-instructional and requires no external assistance for use.

Related Materials:

- Project Management Basic Principles (See A 2.4)

Ordering Information:

Copies of this product are available from:

Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Costs are $5.00 for the Manual and $25.00 for the optional filmstrips and tapes. One copy of the Manual per student is required. If the filmstrips and tapes are used, one set per class is recommended.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

OUTCOMES -- SELECTION PROCEDURES A 2.4

Title:	Project Management Basic Principles
Descriptor:	A multimedia, self-instructional training package to improve the project-management techniques of school personnel.
Publication Date(s):	May 1973; November 1975 (Information is current as of February 1975)
Originator:	C. Peter Cummings and Desmond L. Cook, Administering for Change Program, Research for Better Schools, Inc. (RBS), and Educational Program Management Center, The Ohio State University
Intended Users:	Project staff personnel, school administrators, school district central office staff, undergraduate and graduate educators, community agencies' personnel interacting with schools, and supportive staff and agencies such as state departments of education.
Purpose:	This training product emphasizes the development of user knowledge and skills required to effectively manage a project in a school district setting. Goals: The goal of the product is to help school districts manage projects more effectively, thereby meeting time, cost, and performance expectations for their school improvement efforts. This is accomplished by providing users with the knowledge and skills necessary to plan, prepare, operate, and terminate a project. Objectives: The skills allow the user to perform such management tasks as: (1) developing a project plan including work structure, workflow diagram, time estimates, and budget; (2) preparing for the startup of a project; (3) monitoring the operation of a project; and (4) handling the termination of orderly transition of a project into an ongoing program.
Content:	Following an introductory section, the product contains training in the following areas of project management: defining the project goal; developing the project work breakdown and work flow diagram; preparing time estimates; estimating and scheduling resources; developing the project budget; planning the project "start-up;" developing an information system and a procedures handbook for the project; monitoring project operations; problem solving through management action; implementing any changes in project operations; and developing a project termination plan.
Usefulness Related to CBE:	Because of the flexibility of this material, it could be used to train school personnel to manage the installation of a CBE system in a school district.

History of Development:

The product increases the ability of project managers in local school districts to perform the project-management tasks of each of the phases in the project-management process. This claim is based on a summative evaluation conducted during 1973 involving several school districts in different states.

Particular attention has been given to the product's content and instructional process. Product development involved the steps of analysis, conceptualization, design, construction of prototype, pilot testing and revising, field testing and revision, and summative evaluation. The steps of analysis, conceptualization, and design involved a task analysis of project management in schools, a review of literature on project-management and instructional-system design, and consultation with experts in project-management and instructional-system design. The construction of the prototype involved the developer and a project-management expert in the writing of lesson material. The pilot testing, field testing, summative evaluation, and revisions of the product involved project managers from school districts in several states and many other knowledgeable educators. This developmental process has been carefully documented.

Steps have been taken to insure that the product excludes social bias. During the pilot and field testing of the product, school district personnel brought incidences of bias to the attention of the developers. As a result, changes were made to both the audiovisual and printed materials.

The product has been used by school districts of various sizes in different regions of the United States with comparable results in terms of the users' improved ability to perform project-management tasks associated with planning, preparing, operating, and terminating a project. Users have been able to continue training staff without the assistance of the developer.

Main Activities:

- Define the project goal.
- Develop the project work breakdown and workflow diagram.
- Prepare time estimates.
- Estimate and schedule resources.
- Develop the project budget.
- Plan project "start-up."
- Develop an information system and a procedure handbook for the project.
- Monitor project operation.
- Apply problem-solving principles through management action.
- Implement changes in project operations.
- Develop a project termination plan.

Provisions for Use:

Format: Three looseleaf notebooks, 12 filmstrips, and 12 synchronized tape cassettes.
Personnel: The product can be used by an individual or group of district staff without previous training in project management or educational administration. Districts may choose, however, to obtain consultation or assistance from the developer for initial staff training or adaptation of the materials to special needs.
Product Components: Materials include user management instructions, learning objectives, a content script, and listening tapes. The product provides a mixture of individual and group activities. Each of the lessons can be modified easily to apply to a wide range of school district projects or program activities.
Time Span: The time required to study the materials varies from 24 to 40 hours depending on the study options selected.

Conditions of Use:

No specially trained individuals are required for a district to use the product. It is recommended, however, that one person coordinate the training of the other staff members. Also, it is recommended that top-level administrators in the district use Project Management Executive Orientation before other staff are trained in the use of this product. In this manner, the users will have the support necessary for implementing many of the procedures they learn in their day-to-day work.

Many users have found it beneficial to view lesson audio-visual presentations for a second time or to refer to printed lesson material during the course of their project management work in the district. Therefore, it is recommended that the materials be kept readily available to project managers after the initial training sessions.

Related Materials:

o Project Management Executive Orientation (See A 2.3)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost:

Volume I, and Volume II	$ 7.50 each
Volume III	5.00
12 filmstrips and 12 cassette tapes (optional)	60.00

One copy of each volume is needed for each participant.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Handbook of Comprehensive Planning in Schools

Descriptor: A training manual, designed to assist school personnel, define district-wide curriculum objectives and assess current school programs.

Publication Date(s): January 1975

Originator: Sanford Temkin, Michael D. Marvin, Hsuan De Lorme, and Herbert Demby, Administering for Change Program, Research for Better Schools, Inc. (RBS)

Intended Users: School district administrators, curriculum coordinators and teachers, working as a team.

Purpose: Goals: This planning handbook presents procedures for district administrators, curriculum coordinators, and teachers to identify strengths and weaknesses of curricula.

Objectives: It has as its main objectives that the:

- teachers and administrators develop a sense of commitment to an organization
- team develops goal and priority statements
- teachers and administrators identify strengths and weaknesses in curriculum
- teachers and administrators recommend ways to improve classroom performance

Content: The handbook focuses on curriculum improvement, instructional improvement, and organizational improvement. Staff are instructed to develop or adapt district goals, assign priorities to district goals, and prepare and use classroom indicators of performance. Further, the staff prepares recommendations for curriculum improvement based on data from indicators.

Staff development is also provided in the areas of comprehensive planning, staff involvement, needs assessment, goal setting priority setting, and performance measurement.

Usefulness Related to CBE: The handbook will be useful to schools involved in various stages of CBE implementation.

History of Development: Throughout product development, formative evaluations were conducted. During the period 1970-1973, the product underwent careful development involving the steps of analysis and conceptualization, design, construction, pilot test and revision, and field test and revision. Local school districts involved in pilot and field test activities provided important feedback for revision and improvement.

History of Development: (Cont.)

The product has been used in medium-size urban school systems and large and small suburban districts for different curricular areas. These users were able to write planning objectives, develop indicators of student performance, and use the data resulting from the indicators to identify curriculum improvement needs without the assistance of the developer.

The nature of the content of the product tends to minimize the chance of social bias. Although the developer has striven for social fairness in writing the material, no formal analysis of wording or examples has been conducted.

Main Activities:

- o Team develops or adapts goal statements.
- o Team assigns priorities to goals.
- o Team prepares classroom performance measures.
- o Team builds a plan for inviting other classroom teachers to participate.
- o Participating teachers use performance indicators.
- o Team collects and analyzes data.
- o Participating teachers and principals prepare recommendations for improvement in each school.

Provisions for Use:

Format: Team participants work as a group in on-the-job situations.
Personnel: A project manager and 8-15 principals and teachers for each curriculum area. No special expertise is required.
Product Components: The Handbook of Comprehensive Planning in Schools, which contains three sections. Available and recommended is a computer processing system that can be flexibly adapted to the information needs arising from this approach.

Conditions of Use:

The materials have both individual and group exercises for on-the-job applications. A team approach is required. A typical team may include a project manager (often a curriculum coordinator), three or four principals, and seven or eight teachers from different schools and various grade levels. Group composition can be varied according to focus on the curriculum improvement activity and staff interests and availability.

Strong commitment to participatory decision making by central office staff is essential. A considerable amount of release time for participating teachers is necessary. Since each school district tends to fashion a different approach for each curriculum area, the time required is difficult to pre-specify. Some summer work for participants is usually required as well.

This training manual has been used in a three day workshop mode. Workshop topics could include planning

Conditions of Use: (Cont.)

objectives, priorities, program structures, and performance indicators. The workshop mode requires the leadership of a seasoned consultant.

Related Materials:

Since this package helps staff to suggest curriculum improvements, several management tools could be effectively used in conjunction with this product. For example:

- o Designing Instructional Programs (See C 3.1)
- o SWRL Instructional Product Selection Kit (IPSK) (See C 2.1)
- o Curriculum and Instruction: Planning Improvement (See B 3.1)

Ordering Information:

Write: Educational Technology Publications, Inc.
140 Sylvan Avenue
Englewood Cliffs, New Jersey 07632

Cost: $9.95 per copy

One copy of the handbook for each participant is suggested.

As suggested above, release time is an expense.

Reproduction and printing of materials developed by the team is an expense, as well as data processing activities. The recommended computer system is operated by the Provident National Bank in Philadelphia. Information about this capability is available from the Field Services Division of RBS, 1700 Market Street, Philadelphia, Pennsylvania 19103.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

OUTCOMES -- SELECTION PROCEDURES A 2.6

Title: Rural Futures Development (RFD) Strategy

Descriptor: A comprehensive strategy for improving the capacity of rural educational communities to identify and solve educational problems.

Publication Date(s): Developmental versions of products supporting the strategy were completed in November 1975. Final versions are scheduled for completion by November 1977.

Originator: Rural Education Porgram, Northwest Regional Educational Laboratory (NWREL)

Intended Users: State, regional, and local education agency staff; school staff and board members; community group members; and process facilitators, who assist local district groups in identifying and solving educational problems.

Purpose: Goals: The goals of the RFD strategy are (1) to assist people in rural communities regain self-determination and local control and (2) to improve the capacity of state and regional education agencies to provide the types of services, specifically through training external change agents called process facilitators, that will result in educational improvements in rural schools.
Objectives: Within the strategy there are objectives for each participating group.

Content: The content of this strategy is a seven-phase problem solving process which is implemented within a region of a state. In the first phase, process facilitators working at the regional level make information about RFD known in local districts. During the second phase, local districts agree to participate and, with the process facilitator's help, organize a School-Community Group composed of parents, school personnel, and students. Phases Three through Seven describe the involvement of the School-Community Group in a careful process of assessing district needs, searching for alternatives to meet needs, selecting and planning the implementation of an alternative, and installing and assessing the results of the chosen alternative. Throughout, a process facilitator team works with the group, attempting to develop the level of skill in the group to a point where the services of the process facilitator are no longer required.

As the School-Community Group works through the steps of the problem solving process, process facilitators help in three ways:

- they help the group accomplish tasks;
- they help the group learn procedures for functioning effectively; and
- they help the group collaborate with other groups, such as school staff, the local school board, etc.

Usefulness Related to CBE:

The RFD Strategy could provide an effective vehicle for the installation of a CBE program in rural schools. At the local level the strategy calls for the formation of a representative group of citizens, school staff members, and students which is assisted in systematic problem solving by an external process facilitator team. Such a problem solving group could play a central role in building commitment to a CBE program in the school and community, and in establishing a climate conducive to the success of the program. Skills learned through participation in the RFD Strategy could be directly applied to solving problems related to the implementation of a CBE program.

History of Development:

The RFD Strategy has been under development since 1972. There are seven products which support the strategy:

- Strategy Descriptions. These materials provide basic information to make potential users aware of RFD. Formative data to improve the effectiveness of these descriptions is being gathered.
- RFD Guide for Support Agencies. This product provides information, guidelines, and procedures to help state and regional educational agencies support educational problem solving at the local level. Explanatory test data are presently being collected for this product. Further information about tests of this and other RFD products is available from the Research and Evaluation Unit of the Rural Education Program (see address below).
- RFD Manual for School-Community Process Facilitators. This product provides information, guidelines, and resources for process facilitators who assist school-community groups in rural districts, and who assist school staffs and boards to collaborate effectively with school-community groups. A prototype version of the manual, based on the results of exploratory testing, has been completed. Further evaluative testing of the manual will not take place apart from the context of the entire RFD strategy evaluation.
- RFD Guide for Training School-Community Process Facilitators. This product, along with accompanying sample training activities, is designed to be used by state and regional education staff who are designated as part of a state or region-wide RFD installation effort, as trainers of process facilitators. A prototype version of the Training Guide, based on the results of exploratory testing, has been completed. Further evaluative testing of the training guide will not take place apart from the context of the entire RFD strategy evaluation.
- RFD Notebook for School-Community Groups; RFD Guide for School Boards; RFD Guide for Schools. These three products provide information, resources, and

History of Development: (Cont.)

guidelines to help school-community groups, school boards, and school personnel participate effectively in the RFD Strategy. Prototype versions of each of these products, based on the results of exploratory testing, have been completed. Further evaluative testing of these products will not take place apart from the context of the entire RFD strategy evaluation.

The RFD strategy currently is being tested in its entirety in the eastern part of the state of Washington; adaptations of the Manual and Training Guide are beng used to train some 35 Oregon Community Education Coordinators in the skills of process facilitation and six CE Directors as trainers of coordinators. Similar adaptations are being made to train 50-70 Cooperative Extension Service agents in Washington in the skills of process facilitation and some 16 CES leaders as trainers.

Main Activities:

The RFD strategy is a comprehensive approach to planned change that begins with a need at the local level for educational improvements. Regional and state agencies undertake to meet those needs in the following ways: (1) the regional agency hires process facilitators and (2) the state agency hires trainers of process facilitators. As the strategy has been implemented to date, the state and regional agencies enter into a contract with the Rural Education Program, which provides consultation as an RFD project is being installed, and which trains both process facilitators and trainers of process facilitators. Training is built around the problem solving cycle with which process facilitators help local problem solving groups, and training is directly related to the actual work that process facilitators are doing in a district. At the conclusion of an RFD project, regional agencies have fully trained process facilitators on their staff; state agencies have trained trainers who can train process facilitators in other regions of the state; local districts have citizens, staff, and students skilled at the identification and solution of educational problems.

Provisions for Use:

Format: Training sessions take place in a workshop setting, and are augmented by opportunities for on-the-job assistance, where a trainer accompanies a process facilitator to the local district in which he/she is assisting a group with problem solving skills.
Personnel: Regional process facilitators and state process facilitators trainers.
Product Components: See above History of Development.
Time Span: One complete problem solving cycle may be accomplished in one to two years.

Conditions of Use:	The RFD Stregegy is designed to be useful in virtually any rural educational setting since it is oriented to processes rather than predetermined solutions.
Related Materials:	None
Ordering Information:	Information about the RFD Strategy is available from: Frank Anderson, Director Rural Education Program Northwest Regional Educational Laboratory 710 S.W. Second Avenue Portland, Oregon 97204 Cost: Not yet determined since materials are still under development.

Title: Determining Instructional Purposes

Descriptor: A three-unit training package for educational administrators concerned with long range planning and decision making.

Publication: Date(s): 1972 (Interim Release Form); 1974

Originator: Joyce P. Gall, Charles L. Jenks, Linda J. York, J. Gregory Otto, and Nancy G. Bostick, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Assistant superintendents, curriculum directors, principals, department heads, and head teachers, grades K-12. May also be useful in graduate training for administrative credentials.

Purpose: Developers are of the opinion that actually a great many educators need training in one or more of the areas of goal setting, problem analysis, and deriving objectives.
Goals: Participants will be provided opportunity to apply concepts and principles learned to their present or prospective job situations.
Objectives: There are three major outcomes to be realized upon completion of the three units:

1. "improved knowledge of and attitude toward deriving district goals;"
2. "sharpened skills in identifying instructional problems and defining problems using existing and desired student outcomes;"
3. "deriving objectives as part of the goal refinement process and ultimately translating goals into more specific statements of desired learning outcomes."

Content: Three units, each designed for a specific purpose are divided into modules as follows:
Setting Goals is in four modules:
o deriving district goals
o refining goals into goal indicators
o screening sets of goal indicators
o prioritizing goal indicators
Analyzing Problems is in six modules:
o Which problem signals warrant further analysis?
o What problems do the signals imply?
o What additional information is needed?
o How should the information be collected?
o Are the problems valid?
o If they are valid, how serious are the problems?
Deriving Objectives is in four modules:
o the goal refinement process

Content: (Cont.)

- screening objectives
- analyzing sets of curricular objectives
- district planning for goal refinement

Usefulness Related to CBE: The materials in this training "treat comprehensive K-12 school and district problem situations (as well as) district goals and goal refinement. Aside from the variety of illustrations drawn from K-12 district and school settings, the processes of goal setting, problem analysis, and goal refinement could be easily adapted to any instructional setting without regard to grade level, curriculum content, or organization.

History of Development: Each of the units was field tested under separate conditions as described by the authors:

"Setting Goals was field-tested at three school districts and at two universities; 74 subjects participated in 1971 and 1972. Analyzing Problems as field tested at a university on four different occasions, with 44 subjects in 1971. Deriving Objectives was tested at five sites with 12 to 168 participants (graduate students, school personnel, and professional organization workshops participants) in 1971-1972."

Main Activities: The training in each of the units is similar in format. Each one is made up of reading assignments and input materials. In addition, there are worksheets to be completed and then reviewed by another group participant. Self-test exercises with suggested responses provide regular immediate feedback. Group discussions are held at the conclusion of each module within a unit. As a process is learned, individual assignments are given, based on each participant's "real life situation."

Provisions for Use:

Format: Workshop or course.

Personnel: Regardless of the format used, a coordinator is essential to successful training. The coordinator schedules the units, leads discussions, makes any necessary modifications in training, and monitors the progress of participants. No special training is needed for the coordinator. The manual provides all the necessary information for conducting sessions. The only prerequisite for participants or coordinator is a familiarity with how schools function.

Product Components: A Coordinator's Handbook and three loose leaf student manuals for each of the training units.

Time Span: Two to three hours per module is given as an estimated time, totaling 30-45 hours to complete all three units. This time may be divided into smaller sections and scheduled over a long period or it may be completed in a two- or three-day session. The time needed is largely dependent on the intensity of the group.

Conditions of Use: As much as possible the units provide the participants with an opportunity to apply what is learned to their present school situation. Each of the units remains flexible in scheduling, sequencing, setting, and the number of participants to be trained. Modifications based on group needs can be applied easily.

Related Materials:

- Designing Instructional Programs (See C 3.1)
- Evaluation for Program Improvement (See B 3.5)
- Handbook of Comprehensive Planning in Schools (See A 2.5)
- "Community Based Broad Goal Definition" (See D 3.7)

Ordering Information:

Write: Far West Laboratory for Educational Research and Development
1855 Folsom Street
San Francisco, California 94103

Cost:

Coordinator's Handbook	$ 6.00
Unit 1 Setting Goals	10.00
Unit 2 Analyzing Problems	10.00
Unit 3 Deriving Objectives	10.00
"Sample Kit" (sample pages of each unit)	1.00

Title: Providing Organizational Development Skills (PODS) Program

Descriptor: A variety of programs providing practical knowledge, skills, and theories required to organize and manage educational systems.

Publication Date(s): 1975

Originator: Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Educators in upper and middle management positions who are concerned with program implementation.

Purpose: The rationale for preparing organizational development specialists inside organizations (especially schools) includes four current situations:

1. for an OD effort to be successful it must be supported by an OD staff competent to provide line managers with appropriate consultation services in implementing the OD theory;
2. OD specialists that belong to the organization are already committed to improving the organization, and likely to be accorded trust and respect from their peers, and are already familiar with existing norms, structures, and procedures;
3. few school organizations have the financial resources to hire outside organizational consultants over long periods of time;
4. the number of available outside organizational consultants is inadequate to meet the need.

The rationale for providing organization development skills training for on-line managers is that in the final sense, they are the only ones who can actually do organization development work. If on-line managers do not possess OD skills, nothing of any significance is going to change within the part of the school for which they are responsible.

Goals: The PODS programs are based on literature and research of the behavioral and management sciences, with goals stated as follows:

1. Provide pre-service and in-service training programs for all educators in the knowledge, skills, and values of basic group processes.
2. Prepare a small proportion of educators to be organizational development specialists who are able to provide the following help: training in a variety of process skills areas, consulting in a temporary

Usefulness Related to CBE: (Cont.)

course, with the objectives explicitly stated, with activities keyed to objectives, and with frequent opportunities for feedback related to achievement of objectives. This program would also be useful in generating district commitment to and involvement with a CBE-like program.

History of Development:

Between September 1971 and May 1972, "Educational Goals and Objectives" was field tested and revised in 15 school districts in Northern California. By June 1973, over 76 school districts had implemented the program in goal setting.

The course in the writing of performance objectives was developed in the fall and winter of 1971. Fifteen administrators critiqued course content in February 1972. The course was field tested and revised between March 1972 and January 1973, in 18 Northern California districts. At the same time, the Instructor's Manual was field tested.

Results indicated acceptance and demonstrated the ease of use of both the goal setting activities and the course in performance objectives.

As of September 1974, 1,800 districts had used this program.

Main Activities:

A community committee is selected, using one of several suggested procedures provided in the Administrator's Manual. In two meetings, the community committee engages in processes to: (1) rank 18 goals (derived from the California School Boards Association in 1969, and provided in the package; other goals may be added), and (2) determine the extent to which those goals are being met by present programs.

Teachers in the district are then led through an instructional system that is designed to teach them to write performance objectives.

Alternative strategies for managing the program are suggested, as are adaptations to large and small districts.

Provisions For Use:

Activities involving the community committee take place in two 2-3 hour workshops, spaced about one week apart. These activities need an activity leader or other kind of workshop supervisor. The Administrator's Manual suggests procedures for conducting these activities.

Instruction in the writing of performance objectives takes place in four weekly meetings. An Instructor's Manual is used by the instructor and a booklet, "A Programmed Course for the Writing of Performance Objectives," is used by each participant. These materials come with the product.

Provisions for Use:	Format: While a few are intended for self-directed learning, most systems are designed for use in a workshop setting. Personnel: Expertise is included in the training materials. Training in most systems can be replicated by a trainee who has successfully completed the training. Product Components: A program typically includes (1) an instructor's manual, (2) participant handout materials including instructions for exercise, theory, simulation and assessment instruments, (3) reusable demonstration materials, audiovisual aids, and equipment, and (4) occasionally, related volumes containing appropriate research, action techniques, or assessment instruments. Time Span: Some are best conducted for 30 or 40 hours in five straight days. Others may be spread out over several two day sessions a few weeks apart. Two of the systems have to be spread out over a period of several months, since the learning is applied in the trainee's actual work setting.
Conditions of Use:	There are no constraints or prior knowledge necessary to successful use of these programs.
Related Materials:	None
Ordering Information:	Write: Northwest Regional Educational Laboratory Improving Teaching Competencies Program Office of Field Relations and Dissemination 710 S.W. Second Avenue Portland, Oregon 97204 (503) 248-6868 Cost: See individual program descriptions.

OUTCOMES -- SELECTION PROCEDURES A 2.9

Title: Educational Goals and Objectives: A Model Program for Community and Professional Involvement

Descriptor: A packet containing activities for community goal setting and instructions for teachers in writing performance objectives.

Publication Date(s): 1972

Originator: Program Development Center of Northern California, Butte County Schools, Chico

Intended Users: School district staff, administrators, students, and community members.

Purpose: The purpose of this product is to provide an inexpensive but effective educational planning model.

Goals: The strategies comprising the model are aimed at involving community members, professional staff, and students in three areas:

- ranking educational goals
- assessing how well current programs are meeting goals
- developing performance objectives that are consistant with goals.

Objectives: Several objectives for this program are listed:

- to secure community participation in the determination and prioritization of goals
- to increase community and professional involvement, interaction, and communication
- to provide documentation of district needs for state and national consideration
- to develop a defensible basis for allocating resources
- to improve teachers' and administrators' program planning skills
- to enhance opportunities for educators to serve effectively in leadership roles.

Content: An Administrator's Manual provides management procedures designed to insure the smooth functioning of the program. Suggestions for the selection of committees to accomplish tasks are provided, followed by sections that describe two "phases" of the program. Phase I provides a model strategy and management procedures for ranking educational goals and determining district needs. In Phase II techniques and procedures for translating district needs into performance objectives are presented.

Usefulness Related to CBE: The course in performance objectives appears to be usable in a situation where there are persons who desire to learn to write them. It is, itself, a competency based

Usefulness Related to CBE: (Cont.)

course, with the objectives explicitly stated, with activities keyed to objectives, and with frequent opportunities for feedback related to achievement of objectives. This program would also be useful in generating district commitment to and involvement with a CBE-like program.

History of Development:

Between September 1971 and May 1972, "Educational Goals and Objectives" was field tested and revised in 15 school districts in Northern California. By June 1973, over 76 school districts had implemented the program in goal setting.

The course in the writing of performance objectives was developed in the fall and winter of 1971. Fifteen administrators critiqued course content in February 1972. The course was field tested and revised between March 1972 and January 1973, in 18 Northern California districts. At the same time, the Instructor's Manual was field tested.

Results indicated acceptance and demonstrated the ease of use of both the goal setting activities and the course in performance objectives.

As of September 1974, 1,800 districts had used this program.

Main Activities:

A community committee is selected, using one of several suggested procedures provided in the Administrator's Manual. In two meetings, the community committee engages in processes to: (1) rank 18 goals (derived from the California School Boards Association in 1969, and provided in the package; other goals may be added), and (2) determine the extent to which those goals are being met by present programs.

Teachers in the district are then led through an instructional system that is designed to teach them to write performance objectives.

Alternative strategies for managing the program are suggested, as are adaptations to large and small districts.

Provisions For Use:

Activities involving the community committee take place in two 2- to 3-hour workshops, spaced about one week apart. These activities need an activity leader or other kind of workshop supervisor. The Administrator's Manual suggests procedures for conducting these activities.

Instruction in the writing of performance objectives takes place in four weekly meetings. An Instructor's Manual is used by the instructor and a booklet, "A Programmed Course for the Writing of Performance Objectives," is used by each participant. These materials come with the product.

Conditions of Use: It is recommended that district administrators play an active role throughout the life of the project. Persons to lead the community committee will be needed (suggestions for providing leadership to the committee are presented in the Administrator's Manual). Persons who can carry out instruction in writing performance objectives are also required, and suggestions for recruiting such persons are also found in the Administrator's Manual. It is also suggested that all procedures described in the Administrator's Manual be adhered to as closely as local conditions permit.

Related Materials:

- Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives (See A 3.3)

Ordering Information: Copies of this product are available from:

Phi Delta Kappa, Inc.
Commission on Educational Planning
Box 789, 8th and Union Street
Bloomington, Indiana 47401

Cost: $4.00 per workshop packet (refundable)

A workshop packet is needed by each participant.

Title: Interpersonal Communications

Descriptor: An instructional program for school personnel showing how to increase interpersonal communications.

Publication Date(s): 1973 (Revised Edition)

Originator: Charles Jung et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers, administrators, supervisory and coordinating personnel, and pre-service education students. The instruction system also can be used with high school students and parent groups.

Purpose: In the traditional system of self-contained classrooms, most educators have carried out their roles in relative isolation. Many potentially valuable innovations have not been implemented successfully due to issues of influence, polarized conflict, and ineffective communication. Increased interpersonal communications skills of school personnel will reduce at least one hindrance to local improvement efforts.

Goals: This program provides (a) information about the process of communication, (b) opportunities for participants to increase their interpersonal communication skills, and (c) experiences for understanding one's own styles of communication.

Objectives: This program provides teachers with competencies in:

1. Paraphrasing to assure understanding of what others are saying
2. Describing behavior as a skill to enable others to identify and recognize the specific behavior to which an individual is responding
3. Describing, as distinguished from expressing, feelings
4. Checking one's perceptions of others' feelings or intentions
5. Identifying nonverbal communication cues
6. Applying guidelines to giving and receiving feedback
7. Identifying the effects of expectations in communications
8. Applying the concept of matching behavior with intentions in communicating
9. Identifying freeing and binding responses which affect openness of communication
10. Applying the circular process model of interpersonal relations to identifying behaviors in one's own style of communicating
11. Identifying the effects of roles on communications
12. Identifying the effects of norms on communications

Purposes: (Cont.)

13. Identifying the effects of one- and two-way communication
14. Identifying patterns of communication
15. Identifying the influence of one's personal style of communicating under pressure
16. Applying techniques of assessing one's knowledge and skills in interpersonal communication
17. Applying guidelines to creating self-improvement communication exercises
18. Developing interpersonal support for improving communication skills

Content:

A workshop provides participants with knowledge and skills generally applicable to:

1. Face-to-face communication
2. Individual styles of communicating
3. Group and organizational factors which affect communication
4. Continued improvement of one's communication skills

During the workshop, exercises include: (a) paraphrasing, (b) behavior description, (c) describing feelings, (d) nonverbal communication, (e) the concept of feedback, (f) matching behavior with intentions, (g) communicating under pressure, and (h) communication patterns in the school building.

Usefulness Related to CBE:

The success of implementing competency-based programs relies on good communication within and between groups as they attempt to explore what it is and how to do it.

History of Development:

This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. A brief overview is provided in entry A 2.8. Evaluation reports including field test data are available from NWREL, Improving Teaching Competencies Program, Dr. John Lohman, Program Director.

Main Activities:

Educators frequently are involved with communication behaviors focused on in these exercises. It is assumed they do not often give them much attention. These exercises bring them more clearly into awareness. Certain knowledge about communicating is made explicit.

Improving skills goes beyond becoming clearer about what is already known. Each exercise involves participants in practicing the behaviors and receiving "feedback" from others concerning their use of them. The emphasis is on learning TO DO as well as on gaining knowledge. Many skills in interpersonal communications involve the personal style of the individual. For example, the exact behavior used in "paraphrasing" is a matter of personal style. Many alternative behaviors, with particular contexts, can meet the criteria which define the skill of

Main Activities: (Cont.)

"paraphrasing." These exercises provide opportunity for participants to become clearer about their personal styles.

To summarize, the sequence of 20 exercises provides three kinds of learning: (1) participants become clearer concerning things to know about interpersonal communications; (2) they practice what they do in interpersonal communications, and (3) they become able to recognize more clearly their own personal style of communicating with others.

Provisions for Use:

Format: Designed as a teacher in-service workshop.
Personnel: One experienced trainer or a team of qualified trainers for 12-36 participants (materials provided for multiples of 6).
Product Components: One trainer's manual per trainer, one set of participant materials per participant, nine 16mm films, and one audio-tape. The group may also wish to use the following: Field Test and Outcome Milestone Report for Interpersonal Communications (1974) and Summary of Interpersonal Communications Field Test and Outcome Milestone Report (1975). Special equipment needed consists of one film projector and one tape recorder.
Time Span: There are 20 sessions which require approximately 30 hours to complete. Whenever possible, training should be covered in five consecutive days or two sessions of two and one half days held within two weeks.

Conditions of Use:

Although there are no prerequisites, participants must be present for every session of the workshop since the exercises are sequential and cumulative. Other considerations would be cost of a trainer for five days and release time for participants for five days.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Research Utilizing Problem Solving (RUPS) (See C 2.7)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13)
- Preparing Educational Training Consultants: Consulting (PETC II) (See A 2.17)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18)
- Interpersonal Influence (See A 2.19)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information:

Write: Xicom, Inc.
RFD #1
Sterling Forest
Tuxedo, New York 10987
(914) 351-4735

Ordering Information: (Cont.)	Cost:	Leader's Manual: *Interpersonal Communications* (396 pp., loose leaf, and three-hole punched)	$ 19.95
		Participant Materials (342 pp., loose leaf, and three-hole punched)	$ 12.95 per set
		Audiovisual Instructional Materials: Set of nine 16mm sound films and one audio-tape	$195.00 per set

Above prices plus shipping charges. Optional evaluation reports are available for $5.00 each.

Title: A Curriculum Rationale #8

Descriptor: A filmstrip-tape program showing teachers how to use Ralph Tyler's society-student-subject curricular rationale.

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: For experienced as well as prospective teachers who are concerned with selection of goals for school programs.

Purpose: Goals: None stated.

Objectives: There are four major outcomes identified with this program. At the conclusion, the learner should be able to:

1. Distinguish whether educational questions are primarily related to ends or means.
2. Correctly match descriptive phrases with components of the curricular model.
3. Fill in a blank diagram depicting major components of the curricular model treated in the program.
4. Write an essay response describing the process of curricular decision making which reflects increased sophistication regarding the selection of educational goals.

Content: The Tyler Rationale deals with a system for the selection of objectives. This process begins with consideration given to three sources (student, society, and subject) in order to develop general, tentative goals. These goals then are screened by the curriculum writer's philosophy of education and knowledge of the psychology of learning. The process culminates with precise objectives which serve as ends to instruction.

Usefulness Related to CBE: Teachers involved in this program should begin to appreciate the importance of an equal concern for the substance as well as the form of instructional objectives.

History of Development: The program was field tested twice in 1968 with secondary teaching credential candidates at UCLA. There is resulting quantitative data available in the instructor's manual. A description of testing reveals that pre- and posttests were administered on an "item sampling basis wherein different individuals received different items and no individual completed the entire test."

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on

Main Activities: (Cont.)

individual group needs. In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:
- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Since the filmstrip advocates measurable skills, they should be used to achieve identifiable competencies.

Related Materials:

Other VIMCET programs treating the area of curriculum:
- Deciding on Defensible Goals via Educational Needs Assessment #25 (See A 2.12)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

OUTCOMES -- SELECTION PROCEDURES A 2.12

Title:	Deciding on Defensible Goals via Educational Needs Assessment #25
Descriptor:	A filmstrip-tape program describing the use of preferential ratings of objectives to aid in the selection of educational goals.
Publication Date(s):	1971
Originator:	W. James Popham, Graduate School of Education, University of California, Los Angeles
Intended Users:	For experienced as well as prospective teachers who are concerned with selection of goals for school programs. The "introductory" nature of the material might make it most appropriate for pre-service programs.
Purpose:	Goals: None stated. Objectives: The following measurable objective is provided or the program: "After completing the program the learner will be able to prepare a written plan for an educational need assessment procedure, using a real or fictitious educational situation, which is judged superior to a comparable plan prepared prior to the program."
Content:	The strategy called educational needs assessment is treated in depth as a specific procedure in goal selection.
Usefulness Related to CBE:	An enclosed examination provides a measure of the competencies stated in the instructional objective shown above, and since the filmstrip advocates measurable skills, they can be used to achieve identifiable competencies.
History of Development:	The program has not been field tested extensively. A similar version was tried with five graduate students at UCLA. An independent judge evaluated four of the five responses on the posttest as superior to the respective pretest responses.
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs. In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip may be used as an adjunct to courses in curriculum. Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of curriculum.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use: None

Related Materials: None.

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost:	Filmstrip-tape program	$18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two week preview available for any two filmstrip programs.

Title:	Preparing Educational Training Consultants: Skills Training (PETC I)
Descriptor:	The first in a series of three cumulative and sequential instructional systems designed to train educators in assisting small groups to improve process skills.
Publication Date(s):	1976
Originator:	Rene Pino et al., Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	This training system is designed for educators at any level who wish to acquire trainer and consultant skills.
Purpose:	PETC I is the first in a series of the three PETC systems, and is constructed to be a prerequisite to the other two programs. Goals: PETC I is an experiential instructional system which provides training in such process skills as goal setting, problem solving, communicating, influencing, and decision making. Objectives: Skills Trainers are prepared specifically by PETC I to: 1. Assess issues and problems within a group 2. Diagnose skill needs of individuals 3. Identify group priorities for skills training exercises 4. Apply criteria for selecting and sequencing skills training exercises 5. Adapt and conduct skills training exercises 6. Evaluate acquisition of skills Skills Trainers participating in a PETC I program use the techniques and strategies learned in Part I to work with people in Part II on group process skills (GPS). GPS participants are provided with the opportunity to learn to: 1. Assess existing and potential problems within a group of which they are a part 2. Identify small group process skills which they, as individuals, need to improve functioning in small groups 3. Increase experience with these skills by participating in exercises chosen by the Skills Trainer 4. Identify learning for application in back home setting
Content:	The training of participants includes the following: 1. Assess issues and problems within a small group 2. Diagnose skill needs of individuals within the group 3. Identify group priorities for skills training exercises 4. Apply criteria for selecting and sequencing skills training exercises

Content: (Cont.)

5. Adapt and conduct skills training exercises
6. Evaluate acquisition of skills

Usefulness Related to CBE: Whether a group is working together for the purpose of selecting outcomes, designing tests and instruction, or developing a management system, there are certain key elements to group effectiveness which can be considered critical to success. These are the kinds of things covered in this training.

History of Development: This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. A brief overview is provided in entry A 2.8. Evaluation reports including field test data are available from NWREL, Improving Teaching Competencies Program, Dr. John Lohman, Program Director.

Main Activities: The PETC I system is a two-part workshop. The first part of the program consists of a one-week training program during which the PETC I trainees (Skills Trainers) study the basic concepts of the instructional system. Also, during the first week, the Skills Trainers are provided with a series of exercises to practice group skills training.

The second part of the workshop is a practicum for the Skills Trainers. During the practicum the Skills Trainers form trios; each trio works with a second group of 12 to 24 people. This second training week is referred to as the Group Process Skills (GPS) workshop, and the second set of participants are called GPS trainees. These sessions, which are conducted over a five-day period, are designed so GPS trainees can obtain training in group process skills from the trio of Skills Trainers. The techniques and strategies of group process exercises are applicable to any group for whom the materials are new.

Provisions for Use: Format: Two-Part Workshop. Part I prepares Skills Trainers to conduct group process skills exercises. Part II allows Skills Trainers to practice while they conduct a workshop for others in group process skills.
Personnel: The trainer should have some experience in workshops such as this one, e.g., Interpersonal Communications (See A 2.10) or Research Utilizing Problem Solving (RUPS) (See C 2.7). During Part II of the workshop, the trainer functions as a resource for the participants.
Product Components: Part I: Skills Training, consists of one set of instructional strategies per senior trainer, one set of participant materials per skills trainer, one set of collection exercises per senior and skills trainer, and multiple copies of exercises per workshop. Part II: Group Process Skills Practicum, consists of one set of instructional strategies for GPS per skills trainer, one set of participant materials per GPS participant, and multiple copies of exercises per workshop.

Provision for Use: (Cont.)

The group also may wish to use the following: Field Test Technical Report for Preparing Educational Training Consultants: Skills Training (PETC I) (1975), and Outcome Evaluation Report for Preparing Educational Training Consultants: Skills Training (PETC I).

Time Span: Two weeks are required for Skills Trainers, five consective days for Part I and either five consecutive days or two 2-1/2 day sessions for Part II. Part II, the GPS workshop, requires one week of GPS participant time.

Conditions of Use:

These materials are sequentially organized toward the cumulative attainment of the stated objectives. The training design includes a great deal of participant interaction for feedback, simulation trials, and interdependent action. For this reason, all participants are required to commit themselves to full attendance at all workshop sessions.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Research Utilizing Problem Solving (RUPS) (See C 2.7)
- Interpersonal Communications (See A 2.10)
- Preparing Educational Training Consultants: Consulting (PETC II) (See A 2.17)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18)
- Interpersonal Influence (See A 2.19)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information:

Write: Commercial Educational
Distributing Services
P. O. Box 3711
Portland, Oregon 97208

Cost:

Part I: Skills Training	
One set of instructional strategies per senior trainer	$ 8.90
One set of collection of exercises per senior trainer	6.85
Multiple copies of exercise handouts	
Part II: Group Process Skills (GPS) Practicum	
One set of GPS instructional strategies per skills trainer	6.80
One set of GPS participant materials per GPS participant	5.90
Duplicating options for multiple copies of exercise handouts	
One set of 138 camera-ready exercise handouts	11.00
Twelve sets of all exercise handouts	64.00
Twelve copies of a single exercise handout	.50
Optional evaluation reports	5.00

Title:	Educational Objectives #1
Descriptor:	A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives.
Publication Date(s):	1967
Originator:	W. James Popham, Graduate School of Education, University of California, Los Angeles
Intended Users:	For experienced as well as prospective teachers who are concerned with improving their teaching proficiency.
Purpose:	Goals: None stated. Objectives: The author states that after viewing the program the learner should be able to: 1. Accurately distinguish between written objectives which are stated in terms of student behavior and those which are not so stated. 2. Convert nonbehavioral objectives to objectives which adequately describe post-instruction pupil behavior. 3. Obtain a score on an attitude inventory which reflects a more favorable disposition toward behaviorally stated instructional objectives.
Content:	The program treats the area of what makes a behavioral objective operational.
Usefulness Related to CBE:	This program should be useful in developing a positive attitude toward operationally stated instructional objectives. A possible follow-up to the program would be to convert nonbehavioral goals in the given situation into operational terms.
History of Development:	Over a period of two years the program was field tested and objectives were revised with different sized groups in pre-service courses at UCLA. A major field test was conducted when the program was tested against three other teaching methods addressing the same topic. Three criterion measures were administered before and after treatments. Following this, it was field tested in an in-service education course. Extensive quantative data shown in tables in the instructors' manual indicate that the program was effective.
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

Main Activities: (Cont.)

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in curriculum. For both groups a 20- to 25-minute discussion of presented topics is desirable.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

For post-program discussion The Instructional Objectives Preference List (IOPL) may be used. This is a 20 item inventory which "purports to measure one's positive affect toward behaviorally stated goals."

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:
- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes copies of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

This program provides the opportunity to determine whether behavioral objectives for "higher level cognitive operations from the student" can be stated. Participants handle this best if they use important instructional objectives from their own field.

Related Materials:

Other VIMCET programs treating the area of curriculum:
- Deciding on Defensible Goals via Educational Needs Assessment #25 (See A 2.12).

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Identifying Affective Objectives #10

Descriptor: A filmstrip-tape program for teachers outlining a four-step strategy for generating noncognitive objectives.

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: For experienced as well as prospective teachers who are concerned with improving their teaching proficiency.

Purposes: Goals: None stated.
Objectives: The author states that after viewing the program the learner will be able to:

1. Describe the strategy recommended in the program for identifying measurable affective objectives.
2. When presented with a previously unencountered nonbehavioral objective in the affective domain, generate a greater number of measurable affective objectives than the learner was able to before completing the program.

Content: The emphasis of this program is centered upon the specification of affective objectives.

Usefulness Related to CBE: The program can be helpful in getting teachers acquainted with the difficult-to-deal-with affective domain. A two-part examination based on the objectives is enclosed.

History of Development: The program was field tested with 112 teachers and administrators from three school districts in southern California. At that time the first part of the examination was administered as a pretest and a posttest. Performance went from 2% on the pretest to 98% on the posttest. The second part was administered in the same way with the scores revealing that learners had more than doubled their output of behaviorally stated objectives in the affective domain.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest. Each section is based on one of the two objectives of the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.

Product Components: The Program includes:

- o an illustrated filmstrip, typically 30-40 frames
- o accompanying audio-tape (reel-to-reel or cassette)
- o instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Since the filmstrip advocates measurable skills, they should be used to achieve identifiable competencies. It is recommended that some time be given to post-program discussion of those objectives which learners think are stated behaviorally and in the affective domain.

Related Materials:

Other VIMCET programs treating the area of curriculum:

- o Deciding on Defensible Goals via Educational Needs Assessment #25 (See A 2.12)

Ordering Information:

Write:
Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost:	Filmstrip-tape program	$18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Project Interaction

Descriptor: A process of involving the educational community in developing objectives and solving problems.

Publication Date(s): No date given.

Originator: Management Responsibility Guidance (MRG) Corporation

Intended Users: School personnel, students, and members of the public.

Purpose: This procedure was developed by the originator for the Office of the Superintendent of Public Instruction in the state of Washington. The purpose of the project is to bring about better education.

Goals: The project does this by helping members of the educational community in:

- setting objectives and solving problems in relation to the student
- understanding roles and responsibilities of others in the educational community
- developing an understanding of the interrelatedness of various roles and responsibilities

Objectives: Not specifically stated.

Content: Two processes comprise Project Interaction:

- Images of Potentiality, a process for goal setting
- Management Responsibility Guide Process, a systematic, planned approach to organizational and interorganizational effectiveness

Usefulness Related to CBE: Project Interaction appears to contain processes that would enhance public participation and that could be used to develop a management system for a CBE program. Management Responsibility Guidance Corporation, the developer of this procedure, is experienced in tailoring its processes, which would heighten their effectiveness in a CBE context.

History of Development: Images of Potentiality is a process that was developed by Robert S. Fox, Ronald Lippitt, and Eva Schindler-Rainman.

The Management Responsibility Guide process has been in use since 1961 to help individuals and groups within an organization to establish communications and accountability networks, and to define and solve role and role relationship issues.

Data indicate support for the hypothesis that in schools which participate in the MRG program, participants report

History of Development: (Cont.)

increases in involvement in decision making and increases in role clarity. Increases in communication, trust, and problem solving effectiveness are also reported.

Project Interaction is being used in Washington in four settings:
1. district educational community
2. local school community
3. board/district office interface
4. school/district interface

Main Activities:

Within the Imaging Process, participants go through a series of steps to generate images of the community's ideal future.

The Management Responsibility Guide (MRG) process uses a matrix format and an accountability language to obtain each participant's role and relationship. These are perceptions concerning key aspects of the educational job to be done. Then, participants jointly resolve differences in their respective roles and relationships. Five phases of the MRG process:
1. defining the job that should be done
2. determining how individuals perceive relationships
3. identifying key issues and differences
4. clarifying relationships and resolving differences
5. converting "what should be" to operating reality

Provisions for Use:

Format: The overall process format varies depending on the community.
Personnel: MRG personnel are available to help adapt the processes to local conditions and needs.
Product Components: A workbook describing the processes which may or may not be used by the consultants.
Time Span: Not specified.

Conditions of Use:

No constraints or conditions of use are indicated.

Related Materials:

None

Ordering Information:

More information about Project Interaction and about MRG processes can be obtained from:

Management Responsibility Guidance Corporation
10801 National Boulevard
Los Angeles, California 90064

Cost: Not specified.

OUTCOMES -- SELECTION PROCEDURES A 2.17

Title: Preparing Educational Training Consultants: Consulting (PETC II)

Descriptor: The second in a series of three cumulative and sequential instructional systems designed to help a cadre of educators acquire process training and consulting skills.

Publication Date(s): 1976

Originator: Rene Pino et al., Improving Teaching Competencies Progam, Northwest Regional Educational Laboratory (NWREL)

Intended Users: The kinds of organizations that are expected to sponsor PETC training include private and public educational institutions such as universities, colleges, state departments of education, and school districts.

Purpose: Goals: The general goal of the PETC II instructional system is to prepare educational managers who can manage more effectively and educational consultants who can temporarily help educators work more effectively in groups, i.e., committees, task forces, and faculties.

Objectives: These are stated as follows:

- To prepare educational training consultants to: (1) Apply differential diagnostic techniques and differential intervention strategies in temporarily helping a client system add, or strengthen, a function to realize a value or attain a goal; and (2) Diagnose their own competencies and derive an explicit rationale for assuming the consultant role.
- In this training, the educational training consultants will: (1) Apply phases of planned change in working with a client system; (2) Apply a three-dimensional diagnostic matrix to identifying client needs; (3) Apply a three-dimensional intervention matrix to working with the client system to meet a need; (4) Identify their own competencies as related to the cells of the two matrices; (5) Identify his own professional growth needs and goals; and (6) Identify their own value and ideological base for assuming the consultant role.

Content: Participants are trained in areas to cover each of the above eight objectives.

Usefulness Related to CBE: PETC II graduates should be capable of forming a temporary relationship with a small group or major subsystem of an educational organization to help it make progress toward implementing CBE programs and/or to use these skills to improve the part of the organization over which they have managerial responsibilities. They help

Usefulness Related to CBE: (Cont.) by diagnosing the organization's problems and providing assistance that will temporarily add or strengthen such functions as managing, planning, and producing which allow the group to accomplish its immediate goals more adequately.

History of Development: This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. A brief overview is provided in entry A 2.8. Evaluation reports including field test data are available from NWREL, Improving Teaching Competencies Program, Dr. John Lohman, Program Director.

Main Activities: A PETC II workshop is divided into three parts, the first consisting of three consecutive ten-hour days of instruction in basic concepts of consulting. A typical workshop includes from 10 to 15 trainees and two trainers. Trainees are introduced to a variety of conceptual models and schema related to planned change. These include models developed by Lewin (1951) and Lippitt (1958), and comprehensive diagnostic and intervention models developed especially for this instructional system. Part two is a three-day practicum in which trainees engage in consulting projects with client systems prearranged by the workshop sponsor. Part three concludes the training with three days of debriefing, evaluation of the consulting practicum, and integrating learnings of the workshop.

Provisions for Use: Format: Three-Part Workshop. Part I gives instruction in basic concepts of consulting; Part II provides a three-day practicum with client; Part III includes debriefing, evaluating the practicum, and integrating learnings of the workshop.

Personnel: Two qualified trainers can train 10-15 participants. A training manual includes a set of orientation papers which outline procedures for installing or starting a PETC II workshop.

Product Components: One set of instructional strategies per trainer and one set of participant materials per participant are needed. Participants also may choose to use the following:

- Interim Evaluation Report for Preparing Educational Training Consultants: Consulting (PETC II) (1976)
- Field Test and Outcome Milestone Report Preparing Educational Training Consultants: Consulting (PETC II) (1976)
- Summary of Field Test and Outcome Milestone Report for Preparing Educational Training Consultants: (PETC II) (1976)

The following special equipment is needed: cassette recorder and tapes, newsprint, felt pens, masking tape, name tags, and resource library (approximately 25 books, as specified in training materials, one copy each).

Provisions for Use: (Cont.)	Time Span: Training is spread over a period of eight months. Included are a two-day preworkshop assignment, 17 days of workshop meetings, and at least 10 days spent conducting an OD project.
Conditions of Use:	Participants must be present for every session of the workshop since the exercises are sequential and cumulative.
Related Materials:	Other workshops of the Improving Teaching Competencies Program are: o Interpersonal Communications (See A 2.10) o Research Utilizing Problem Solving (RUPS) (See C 2.7) o Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13) o Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18) o Interpersonal Influence (See A 2.19) o Social Conflict and Negotiative Problem Solving (See A 2.20)
Ordering Information:	Write: Commercial Educational Distributing Services P.O. Box 3711 Portland, Oregon 97208
	Cost: Participant materials (one per participant) $14.00 Training manual (one per trainer) $17.70
	The Resource Library may be purchased or borrowed from a library.

Title: Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III)

Descriptor: The third in a series of three cumulative and sequential instructional systems to provide organizational development skills for educational managers and consultants.

Publication Date(s): Materials are still under development.

Originator: Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Educational personnel with consulting skills who wish to acquire organizational development training and a high degree of consulting skills.

Purpose: PETC III is planned as an instructional strategy by which organizations can build their own capacity to carry out organizational development activities by regular staff members on a continuous basis and to provide organizational development training and consultation as needed to maintain expected levels of capabilities for all managers, leaders, supervisors, and others filling roles of change agents.

Goals: The PETC III instructional system prepares participants to become educational training consultants.

Objectives: As a result of training, consultants are expected to be able to:

1. Identify and explain the major organizational development conceptualization and intervention strategies that are presented in the PETC III instructional system.
2. Meet with a potential client group and translate this group's difficulties into a specific problem or problems on which the group wishes to work.
3. Establish a definite and workable relationship and contract with a client group.
4. Collect information from the client group so that the group's problem(s) may be diagnosed and clarified.
5. Design, provide, and assess the effectiveness of intervention activities that allow the client group to explore and examine alternative norms, processes, and structures.
6. Design, provide, and assess the effectiveness of intervention activities that allow the client group to accomplish normative, procedural, or structural changes resulting in increased functional capability in the organization.
7. Achieve a terminal relationship with the client group by gradual withdrawal and by establihsing structures and procedures to substitute for the services provided by the consultant.

Content: Organizational development cases involve such things as: (1) problems of communication (particularly upward), (2) intergroup conflict, (3) leadership issues, (4) questions of identity and destination, (5) questions about satisfaction and the ability of an organization to provide adequate and appropriate inducements and (6) questions of organizational effectiveness. In other words, three categories of problems which are often addressed by OD are:

1. Problems of destiny-growth, identity, and revitalization.
2. Problems of human satisfaction and development.
3. Problems of organizational effectiveness and organizational health.

Usefulness Related to CBE: In learning to build and maintain improved ways of functioning in the organization, consultants will be more prepared to identify where CBE fits into the whole and how it relates to existing situations.

History of Development: This is one of a series of training packages for organization development specialists developed by the Improving Teaching Competencies Program. A brief overview is provided in entry A 2.8. Evaluation reports including field test data are available from NWREL, Improving Teaching Competencies Program, Dr. John Lohman, Program Director.

Main Activities: During training, PETC III trainees complete a two-day preworkshop assignment, attend 17 days of workshop meetings, and spend a minimum of ten days conducting an organizational development project with a predetermined client group. The following outlines the timeline for major training events:

- o Month 1: Preworkshop assignment (total one day)
- o Month 2: Four-day workshop meeting
- o Month 3: Three-day workshop meeting
- o Month 4: None
- o Month 5: Three-day workshop meeting
- o Month 6: Three-day workshop meeting
- o Month 7: None
- o Month 8: Four-day workshop meeting

There are approximately 30-35 days between workshop meetings for OE project work with client groups.

Provisions for Use: Format: Workshop.

Personnel: Two qualified trainers per 12-27 participants (in teams of 2 or 3).

Product Components: One set of five monographs per trainer, one set of participant materials per participant, and one copy of the central ideas book per participant. Participants also may wish to include Pilot Milestone Report for Preparing Educational Training Consultants: Organizational Development (PETC III) (1976).

Provisions for Use: (Cont.)

Time Span: PETC III training is spread over a period of eight months. This system requires 54 hours of training, 21 hours of individual study, and nine hours of practical experience with the client. Nine days concentrated time is required or three weeks of weekly three-day sessions.

Conditions of Use:

Participants must be present for every session of the workshop since the exercises are sequential and cumulative.

Related Materials:

Other workshops of the Improving Teaching Competencies Program are:

- Interpersonal Communications (See A 2.10)
- Research Utilizing Problem Solving (RUPS) (See C 2.7)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13)
- Preparing Educational Training Consultants: Consulting (PETC II) (See A 2.17)
- Interpersonal Influence (See A 2.19)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information:

Write: To be announced by the originator.

Cost:

One set of four monographs for each trainer

- Conceptual Framework of PETC
- Strategies for Preparing Educational Training Consultants
- The Design for Training OD Specialists
- Case Studies in OD

Cost to be announced

One of each per participant

- Monograph 1 -- Organizational Development: Central Ideas
- Participant materials book

Cost to be announced

Title: Interpersonal Influence

Descriptor: An instructional system for training educators in basic influence skills and phenomena.

Publication Date(s): 1975

Originator: Ruth Emory and Rene Pino, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers, administrators, supervisory and coordinating personnel, and pre-service education students. The system may also be used with high school students and parent systems.

Purpose: Goals: No goals are listed for this system.
Objectives: The following objectives for the system are listed:

- o Ability to identify and explain the major ideas that describe the process of interpersonal influence as presented in the system.
- o Capability for using guidelines provided to diagnose and analyze forces and effects of influence in selected. interpersonal and group situations.
- o Ability to identify and make judgments about one's characteristic influence styles.
- o Ability to identify extent and nature of one's own need to influence.
- o Capability for identifying ways in which principles learned and guidelines utilized in the workshop may be applied in settings other than the workshop.

Content: The training system contains twenty exercises which are divided into three parts. In the first part, the authors state, "the basic concepts and tools for understanding interpersonal influence are introduced. In Part Two attention is paid to characteristic patterns of responses in which individuals engage as they accept influence or exert influence. Part Three is concerned with how selected group phenomena influence group development."

Usefulness Related to CBE: This training system could be used profitably in schools or school districts that are installing a CBE program to help school personnel understand their own influence needs and styles as they affect CBE implementation. Since a new CBE program may call upon school personnel to assume new role responsibilities, Interpersonal Influence could be effective in helping personnel understand relationships among roles and in helping reduce the level of threat that a new role sometimes entails.

History of Development: This training system has undergone a rigorous cycle of development and field testing; results of field tests are available from the Improving Teaching Competencies Program, NWREL, Portland, Oregon 97204.

Main Activities: A variety of instructional techniques, including role playing activities, films, group discussion, and reading, is used in this training system.

Provisions for Use: Format: Workshop.
Personnel: One experimental trainer per 12-36 participants. Each participant needs one set of materials; the trainer requires a trainer's manual.
Product Components: In addition to the participants' materials and trainer's manual, there are nine 16mm films and one audio-tape that accomnpany this system. The following equipment is needed: film projector, tape recorder, newsprint, felt pens, and masking tape. The room in which the workshop is held should be large.
Time Span: The system is designed to take place over five days, each having four 90-minute sessions. The system is flexible, however, and lends itself to the use of longer evening sessions in order to shorten the number of days necessary.

Conditions of Use: While there are no prerequisites for this training, participants must attend all sessions, since the exercises are sequential and cumulative.

Related Materials: Other related instructional systems for organizational development specialists produced by the Improving Teaching Competencies Program are:

- Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13)
- Preparing Educational Training Consultants: Consulting (PETC II) (See a 2.17)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18)
- Interpersonal Communications (See A 2.10)
- Research Utilizing Problem Solving (RUPS) (See C 2.7)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information: Write: Xicom Inc.
RFD #1, Sterling Forest
Tuxedo, New York 10987

Costs:

Leader's Manual: Interpersonal Influence (237 pp., loose leaf, and three-hole punched)	$19.50 each
Participant Materials (185 pp., loose leaf, and three-hole punched)	$12.95/set
Audio-Visual Instructional Materials (four 16mm sound films and two audiotapes)	

Above prices plus shipping charges.

Title:	Social Conflict and Negotiative Problem Solving
Descriptor:	An instructional system to train educators in understanding and using the process of negotiations for role responsibility, dual accountability, and dealing with interpersonal conflict situations.
Publication Date(s):	Materials are still under development.
Originator:	John Lohman, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	Teachers, administrators, supervisory and coordinating personnel, persons from teacher associations, colleges, universities, state departments, and community education groups.
Purposes:	The authors state that the workshop "helps people to develop more useful personal understandings of conflict and to respond more successfully to conflict situations." Goals: Not stated. Objectives: Not specifically stated in this system.
Content:	Topics covered in this workshop include the following: o The Nature of Conflict 1. Diagnosing conflict situations 2. Understanding causes of conflict 3. Understanding feelings in conflict situations 4. Identifying interpersonal styles for coping with conflict o Self-Interest, Values, and Conflict 1. Understanding self-interest, values, and conflict 2. Examining self-interest, selfishness, and altruism 3. Identifying one's own and others' self-interest 4. Understanding assertive, nonassertive, and aggressive ways of dealing with self-interests o Power and Conflict 1. Understanding bases of power 2. Coping with feelings of power and powerlessness 3. Diagnosing power situations o A Negotiative Problem Solving (NPS) Process for Conflict 1. Understanding conditions for NPS 2. Preparing for NPS 3. Using negotiation strategies 4. Assessing negotiation outcomes
Usefulness Related to CBE:	Since the installation of a new program is likely to cause at least some conflict, this workshop can help personnel involved with a CBE program become more skilled at dealing with conflict if and when it occurs.

History of Development: Materials for this workshop are currently under development, which includes a rigorous cycle of field testing and revision. Evaluation reports describing test efforts to date are available from the Improving Teaching Competencies Program (see address below).

Main Activities: Through designed activities and simulations, participants are presented with multiple opportunities to involve themselves in learning about conflict at personal and interpersonal levels. Participants are encouraged to establish and pursue their own learning goals and to support norms of openness to self-inquiry, risk taking, and experimenting with new behavior. Opportunity is provided for personal reflection and integration, and for application to participant work settings.

Provisions for Use: Format: Workshop.
Personnel: Two experienced trainers per 20-36 participants.
Product Components: Each participant needs one set of materials and each trainer requires a trainer's manual. Additionally, newsprint, felt pens, and masking tape are required.
Time Span: Five days. This may be covered on consecutive days or consecutive weekends.

Conditions of Use: This training may be more effective if participants have previous workshop experience in small group process skills. Participants must be present for every session of the workshop since the exercises are sequential and cumulative; interdependence among participants in these exercises is high.

Related Materials: Other related instructional systems produced by the Improving Teaching Competencies Program are:

- Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13)
- Preparing Educational Training Consultants: Consulting (PETC II) (See A 2.17)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18)
- Research Utilizing Problem Solving (RUPS) (See C 2.7)
- Interpersonal Communication (See A 2.10)
- Interpersonal Influence (See A 2.19)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information: Information regarding materials may be obtained from:

Dr. William T. Ward
Improving Teaching Competencies Program
Northwest Regional Educational Laboratory
Portland, Oregon 97204

Cost: Not yet determined since materials are still under development.

OUTCOMES -- DEVELOPMENTAL INSTRUCTIONS A 3.1

Title: Writing Objectives for Improved Instruction

Descriptor: A multimedia kit for teachers and administrators providing instruction and practice in writing objectives.

Publication Date(s): 1972

Originator: James F. Garvey, Superintendent, Glendora Unified School District, Glendora, California, presently teaches in the Graduate School of Education at the University of Southern California, and has authored 15 published articles on education and administration. He serves as a consultant in many states.

Richard H. Brautigam, Superintendent, El Centro (California) School District, has been a speaker at national and state conventions and is the author of numerous articles on education and administration.

Intended Users: Separate materials have been produced for teacher and administrator groups.

Purpose: Goals: The program outcomes are expressed as follows:
As a result of the learning experiences the Administrator will:

- Produce instructional aims, school objectives, and instructional objectives which are well written and consistent with district goals.
- Evaluate objectives in terms of essential elements, worthiness, feasibility, consistency with district finances and goals.
- Evaluate and rewrite, as necessary, objectives in the cognitive, affective, and psychomotor domains.
- Write well-structured professional growth objectives.
- Establish effective teacher performance appraisal based on objectives.

As a result of the learning experiences the Teacher will:

- Produce objectives in the cognitive, affective, and psychomotor domains, which will include all the essential elements and are worthy, realistic, and consistent with district finances and goals.
- State the need for and produce a balance of objectives in the three domains.
- Express confidence in one's own ability and a positive attitude toward constructing instructional objectives and using them for measurement.
- Write objectives in the areas of (1) expected student progress, (2) suitable learning environment, (3) proper student control, and (4) other adjunct duties.

Objectives: Not stated for this kit.

Content:

The kit contains three major sections:

1. a filmstrip-cassette overview (24 frames/color/15 minutes) introduces major terms and concepts developed and presented in the two programs;
2. the teacher's program consists of the Teacher Audi-Text (28 pages; ten texts included in kit) and two audio-cassettes (four sides); this section follows a programmed text format with the work-text providing exercises and the cassette-lectures providing instruction, enrichment, and answers to text problems on such topics as learner-centered objectives, essential elements of objectives, taxonomy of objectives, and suitability and quality of objectives;
3. the administrator's program provides specialized enrichment of the teacher's program and consists of an Administrator's Guide (14 pages) and an audio-cassette; this section offers additional instruction and practice on the construction and evaluation of objectives.

Usefulness Related to CBE:

The kit is compact and could be made easily available to individuals or groups without a lot of planning, expense, or time involvement.

History of Development:

The development of the content and method of this originated through several years of in-service training in the Glendora Unified School District. Field testing has been done in classes of teachers and administrators at the University of Southern California.

The authors do not include any more specific information related to field testing. Anticipating the constant change in needs, however, they are planning updates and revisions as needed.

Main Activities:

A filmstrip-cassette overview is presented to the entire group as an introduction.

Teachers use the Audi-Text for a response device as they work with material presented on cassette tape. Activity in this book consists of some discussion and numerous writing exercises.

Administrator groups use a Guide with the cassette tape. This Guide then becomes a reference for the administrator.

The programmed format allows self-graded appraisal of progress; also, opportunities are provided for fellow-student evaluation of objectives. A review quiz is provided in the Teacher Audi-Text. A posttest is optional and consists of meeting specific program objectives as listed in the Teacher Audi-Text, i.e., writing objectives in the three domains and assessing the text.

Provisions for Use:	Format: Instructions indicate that the kit is intended for group mode, but it also may be self-instructional. Personnel: There is no apparent need for a trainer. A kit contains ten copies of the Teacher Audi-Text and one Administrator Guide limiting the number to be handled at one time. Product Components: o Administrator's Audio Cassette, programmed with Administrator's Guide (a work-text). o Sound/Color Filmstrip Overview. o Teacher's Audio Cassettes programmed with Teacher's Audi-Text (10 copies included, work-text format). Time Span: Completion time of the Teacher Audi-Text is 2-1/2 to 3 hours. Completion time of the Administrator's Guide is 1 to 1-1/2 hours.
Conditions of Use:	An introduction explaining the purpose for writing objectives should precede use of the kit.
Related Materials:	None
Ordering Information:	Write: Career Aids, Inc. 5024 Lankershim Blvd. North Hollywood, California 91601 (213) 985-5656, 985-5659 Cost: $55.00 complete kit includes 10 Teacher Audi-Texts, 1 Administrator Guide, 3 cassettes, and 1 filmstrip. Additional Audi-Texts and Administrator Guides are available for $1.00 each.

Title: Educational Goals and Objectives: A Programmed Course for the Writing of Performance Objectives

Descriptor: A workbook for teachers learning to write performance objectives.

Publication Date(s): 1972, 49 pp. + biblio.

Originator: Program Development Center of Northern California, Butte County Schools, Chico

Intended Users: This product is designed to be used by teachers and/or administrators in a workshop setting to train other school district teachers to write performance objectives.

Purpose: This product was designed to help teachers in school districts respond effectively to data generated by a community-wide needs assessment.

Goals: As part of an overall educational planning model that has been developed by Phi Delta Kappa, the course in writing performance objectives seeks to involve many or all of a district's teachers in the setting of performance standards, so that those standards may clearly be communicated to district citizens.

Objectives: One workshop objective and four meeting objectives are stated for this course. The Workshop Objective is: By the termination of instruction, participants will be able to write program and instructional level objectives for critical skill areas in a subject of individual choice. The accuracy will be determined by the instructor and the class, in accordance with the criteria established in the materials of instruction.

Content: The course focuses on several concepts related to the writing of performance objectives. Goal and objective are discrimated, as are the categories of learning behavior: cognitive, affective and psychomotor. Two levels of performance objectives, Program Level and Instructional Level, are explained. Not appearing in the workbook, but appearing in the Instructor's Manual is a section discussing strategies for the development of program and instructional performance objectives in the district or school.

Usefulness Related to CBE: This product is designed to teach the writing of performance objectives to a completely unsophisticated audience. However, since it calls for teachers experienced in the writing of performance objectives to teach the course, the product can involve all of a district's or school's staff in writing objectives. The product would be used to develop the staff's capability to generate its own program and instructional objectives.

History of Development:	No information concerning the history of development of this product is included.
Main Activities:	Participants alternate workshop and independent activities. At workshop meetings the instructor presents material and there is group interaction and discussion. During independent activities, participants complete specified parts of the programmed workbook.
Provisions for Use:	Format: Four weekly meetings: participants work independently between each. Personnel: It is suggested that a workshop consist of no more than 20 persons. Each participant requires the programmed workbook. In order to implement the workshop, certain personnel need to be identified to become instructors for the workshop. The Instructor's Manual suggests only that these persons acquaint themselves with the contents of the Manual and the programmed workbook. Product Components: The two components needed for the workshop are the Participant's Workbook and the accompanying Instructor's Manual. Time Span: Variable.
Conditions of Use:	Though designed to be used along with PDK's community needs assessment process, there appears to be no reason this product could not be used alone with either part or all of a school staff. No special preparation is needed by participants, although, as stated above, selection of the Instructor is necessary.
Related Materials:	o Educational Goals and Objectives: A Model Program for Community and Professional Involvement (See A 2.9)
Ordering Information:	Copies of a packet containing both community needs assessment materials and the course in performance objectives are available from: Phi Delta Kappa 8th and Union St. Bloomington, Indiana 47401 Cost: $4.00 per packet (refundable)

Title: Analyzing Learning Outcomes #11

Descriptor: A filmstrip-tape program for teachers which introduces task analysis of learner en route behaviors.

Publication Date(s): 1969

Originator: Eva L. Baker, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author states that specifically, at the close of the program, the learners will be able to:

1. Describe the strategy recommended in the program for deciding on an instructional sequence.
2. Formulate relevant entry and en route behaviors for given instructional objectives.
3. Generate more entry and en route behaviors than they were able to prior to completing the program.

Content: The approach to the subject in this filmstrip starts with the question, "What do learners have to be able to do before they can succeed?" Most of the discussion is given to specific examples of terminal behavior statements.

Usefulness Related to CBE: The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: The program has been through two major field test situations. In the first, with 95 secondary teaching candidates at UCLA, results of the examination scores were as follows: pretest, 61% correct; and posttest, 82% correct. In the second, an in-service with 73 teachers, supervisors, and administrators, the results showed 61% correct on the pretest and 85% correct on the posttest. In addition, the author points out that "fifty-six of the seventy-three participants were able to generate more en route and entry behaviors after viewing the program than they could prior to viewing the program."

Main Activities: Learners view a filmstrip. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip may be used as an adjunct to courses in instruction.

Main Activities: (Cont.)

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions or for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should be familiarized with the strategy of starting instruction with a concern for learner response.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Instructional Tactics for Affective Objectives #24 (See C 3.17)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

OUTCOMES -- DEVELOPMENTAL INSTRUCTIONS A 3.4

Title:	Writing Behavioral Objectives: A New Approach
Descriptor:	A guide for educators in curriculum development attempting to state specific behavioral objectives and evaluate outcomes.
Publication Date(s):	1973 (Seventh Printing), 116 pp.
Originator:	H. H. McAshan, College of Education, University of Florida
Intended Users:	Useful for college level students as well as teachers, researchers, and curriculum specialists wishing to improve their proficiency in planning and evaluation.
Purpose:	Goals: Starting with a goals approach, techniques and mechanics are provided for writing three types of performance objectives: specific noninstructional, minimum level behavioral, and desired level behavioral. Objectives: As few as one and as many as 26 specific objectives are provided at the beginning of each chapter.
Content:	Information is presented under the following major topics: behavioral objective components, developing goal statements, identification of evaluation activities, completing the writing process, unique writing problems, and guidelines for writing objectives.
Usefulness Related to CBE:	The text provides a strategy for educators who need to develop precise goal statements in order to determine program effectiveness.
History of Development:	The author summarizes the development in the following paragraph: "A preliminary draft of this manuscript was published by the Florida Educational Research and Development Council and distributed to over 2,000 educators in August 1969. By November 1969, the Council had received purchase orders for an additional 26,000 copies, which will attest to the value of this material in training people to write either performance or behavioral objectives." Workshops were held throughout the state of Florida with approximately 30,000 teachers. However, there is no data available to report results of the field testing or how it was conducted.
Main Activities:	Objectives and tests are utilized in each chapter of the text. The examination for Chapter 1 calls for simple memorizing of facts. In succeeding chapters the examinations call for an increasingly higher level of cognitive understanding.

Provisions for Use:	Format: The text may be utilized with large or small groups in workshop situations or for individual study. Personnel: There is no apparent need for a group administrator; the book is self-instructional. Product Components: The text alone provides a self-sustaining program. Time Span: Depends upon participant and group needs.
Conditions of Use:	The author states that no assumptions are made regarding experience in teaching, curriculum development, or behavioral objective writing.
Related Materials:	None
Ordering Information:	Write: Harper & Row Publishers, Inc. 419 Park Avenue South New York, New York 10016 Cost: $5.50

Title: Defining Content for Objectives #9

Descriptor: A filmstrip-tape program describing how to formulate objectives which possess content generality rather than test item equivalence.

Publication Date(s): 1969

Originator: Eva L. Baker, Graduate School of Education, University of California, Los Angeles

Intended Users: For experienced as well as prospective teachers who are concerned with improving their teaching proficiency.

Purposes: Goals: The author states that "the goal of the program is to promote a more moderate position with respect to the distinction between the substance and form of an educational objective."

Objectives: These are stated specifically, as follows:

1. Describe the desirable relationship an objective should have to test items.
2. Discriminate among objectives which possess content generality and those which do not.
3. Convert objectives which are equivalent to test items to those which possess content generality.

Content: Discussion is given to what an objective should define, with emphasis on content generality.

Usefulness Related to CBE: This program shows participants how to make objectives more useful so that a wide range of test items can be developed for each.

History of Development: The program was field tested with 80 secondary education teacher candidates at UCLA. Pre- and posttest results on the three-part examination showed significant gains at the .01 level.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip should be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the three objectives of the program.

Provisions for Use:	Format: Used best to supplement a course or workshop focusing on the area of curriculum. Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination. Product Components: An illustrated filmstrip, typically 30-40 frames; accompanying audio-tape (reel-to-reel or cassette); an instructor's manual suggesting techniques for using the program and including a copy of the answer sheet and quizzes which may be duplicated locally. Time Span: The audio-tape narration is approximately 30 minutes in length.		
Conditions of Use:	The measurable objectives advocated in the program can be used to achieve identifiable competencies. It is recommended that participants formulate content general objectives in their particular field of instruction.		
Related Materials:	None		
Ordering Information:	Write:	Vimcet Associates, Inc. P.O. Box 24714 Los Angeles, California 90024	
	Cost:	Filmstrip-tape program	$18.00
		Specify whether cassette or reel-to-reel tapes are desired.	
		Order by title and program number. Two weeks preview available for any two filmstrip programs.	

Title: Establishing Performance Standards #4

Descriptor: A filmstrip-tape program describing how to distinguish between class and student minimal proficiency levels.

Publication Date(s): 1967

Originator: Eva L. Baker, Graduate School of Education, University of California, Los Angeles

Intended Users: For experienced as well as prospective teachers who are concerned with selection of goals for school programs.

Purpose: Goals: None stated.

Objectives: There are three behavioral objectives accompanying this program:

1. When given a statement of an objective, to identify the portion of it, if any, which describes a student achievement which enables instructors to identify those students who have satisfactorily achieved the objective.
2. When given an objective, to identify the portion of it, if any, which specifies the class performance standard (achievement levels used to judge the adequacy of instruction).
3. When provided with an objective, to construct performance standards of the two types listed above using both quantitative and qualitative standards.

Content: The main thrust of this program is in the exploration of one component of behavioral objectives, i.e., the level of achievement.

Usefulness Related to CBE: The program should be useful in helping teachers determine whether or not the objective(s) has been accomplished and how to assess individual differences in students' level of achievement.

History of Development: Field testing has been done with students in UCLA's Department of Education and Peace Corps teacher-preparation programs. Over a two-year period, approximately 700 students were involved in the program. From this, some revisions were made, such as adding more cartoon visuals to the filmstrip.

Main Activities: Learners view a filmstrip. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in curriculum. Learners should include performance standards in all subsequent classwork.

Main Activities: (Cont.)

During the program the learner is asked to use an answer sheet. Regardless of the user group each participant is required to take a quiz which may be used as a pretest and/or posttest.

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of curriculum.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and quiz which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

The author states that learners should understand what a behavioral objective is prior to viewing the filmstrip.

The problem of establishing levels of achievement in the more subjective fields could be explored in this program. There are two objectives of a high intellectual level accompanied by possible performance standards which will help to clarify this aspect.

Related

Other VIMCET programs treating the area of curriculum:

- Deciding on Defensible Goals via Educational Needs Assessment #25 (See A 2.12)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Where Behavioral Objectives Exist

Description: An inventory of sources of behavioral objectives.

Publication Date(s): 1974, 60 pp.

Originator: Joseph E. Barrett, Project SPOKE, Norton, Massachusetts

Intended Users: Professional educators, curriculum writers, and other school district personnel who are engaged in curriculum development using behaviorally stated objectives.

Purpose: The author states that the intent of the inventory is to "assist the user in stating the intents of instruction and (to) provide the basic framework for designing individualized programs of instruction."

Content: Sixty collections of instructional objectives are concisely described in this inventory. Each description contains the following information:

- o name
- o distributor
- o developer
- o target audience
- o subject area
- o cost
- o description

A cross-reference guide is included at the end of the inventory.

Usefulness Related to CBE: The inventory is useful in giving to the CBE practitioner a comprehensive view of the curriculum areas where behavioral objectives exist, as well as information about how the collections of objectives may be obtained. Specific collections in the inventory may provide useful lists of objectives and curriculum alternatives for a given school district that is starting to engage in CBE.

Related Materials: None

Ordering Information: Copies of the inventory are available from:

John Stefani, Director
Project SPOKE
37 West Main
Norton, Massachusetts 02766

Cost per copy is $5.00

Title: Preparing Instructional Objectives

Descriptor: A book which describes the role and impact of well-stated objectives in instruction.

Publication Date(s): 1975 (Second Printing), 133 pp.

Originator: Robert F. Mager. Author of several books related to the explicit statement of objectives for instruction.

Intended Users: Individuals who wish to learn to write objectives.

Purposes: The author expresses the thought in the outset that without planning what is to be accomplished through instruction, the teacher can only make guesses at what will be learned.

Goals: Competency based instruction is a three-step process which starts with the teacher's decision of what is to be taught. The next step is planning how it should be taught. Finally, the teacher must determine whether this was accomplished.

Objectives: The author states one behavioral objective for the learner using the book: "Given any objective in a subject area with which you are familiar, in all instances be able to identify (label) correctly the performance, the conditions, and the criterion of acceptable performance when any or all those characteristics are present."

Content: This book is a programmed text with questions asked at regular intervals and answers provided so that the user may move through the material according to needs.

The major topics covered in this book can be summarized as follows:

1. what can be gained from clearly stated objectives
2. how a well-stated objective is characterized
3. practice in identifying these characteristics

A self-test is included in the back of the book to help the user determine what has been accomplished.

Usefulness Related to CBE: As more and more teachers have become involved in the preparation of objectives, some common problems have been noted. Recognizing this fact, illustrations and suggestions are provided which should help the classroom teacher avoid these problems.

Related Materials: Other books written by Robert Mager:

o Measuring Instructional Intent

Related Materials: (Cont.)

- Goal Analysis
- Analyzing Performance Problems
- Quick-Reference Checklist
- Performance Analysis Poster
- Developing Attitude Toward Learning
- Developing Vocational Instruction

Ordering Information:

Write: Fearon Publishers, Inc.
Division of Pitman Publishing Corporation
6 Davis Drive
Belmont, California 94002

Cost: $3.95

OUTCOMES -- REFERENCES A 4.3

Title: Considerations in Selecting and Using Instructional Objectives

Descriptor: A booklet explaining 11 factors to consider when writing or selecting objectives for effective instruction.

Publication Date(s): January 1973, 18 pp.

Originator: Howard J. Sullivan, Chairman, Department of Educational Technology, Arizona State University, and Division Head of Product Development for the Kindergarten Program, Southwest Regional Laboratory for Educational Research and Development (SWRL)

Intended Users: The classroom teacher who possesses a working knowledge of instructional objectives would find this a useful guide written in practical, easy-to-understand language.

Purpose: The author begins with the assumption that "one potential benefit of using instructional objectives as the basis for designing instruction is to help learners accomplish something. Another is to provide evidence that the accomplishments really occured.
Goals: The author states that the teacher who uses this checklist in writing objectives is assured of realizing considerable success in "select(ing) appropriate instructional objectives and design(ing) effective, appealing instruction."

Content: Each factor of consideration is basic and applicable to all educational experiences. Each one is written as one of the following questions:

1. Is it really important for the student to possess the skill stated in the objective?
2. Does the student already possess the skill stated in the objective?
3. Is the skill or attitude teachable?
4. Should I set performance standards?
5. Is the student given the information needed to attain the objective?
6. Do the instructional activities provide direct practice on the objective?
7. Does the learner possess the prerequisite skills necessary to attain the objective?
8. Should there be alternative instructional methods for the objective?
9. Are the instructional activities potentially appealing?
10. Does the planned assessment measure the skill stated in the objective?

Content: (Cont.)

11. Does the importance of the objective justify the estimated time and expense?

Usefulness Related to CBE: This easy-to-read guide is very useful to individuals wishing to select or write worthwhile objectives.

Related Materials:

- o An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator (See B 4.2)
- o Priorities Planning: Judging the Importance of Individual Objectives (See A 4.4)
- o Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests (See B 4.1)
- o Designing Teacher Evaluation Systems, W. J. Popham, Catalog No. PA104, Price $1.25

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, CA 90024

Cost: $1.00 Catalog No. PA105

OUTCOMES -- REFERENCES A 4.4

Title: Priorities Planning: Judging the Importance of Individual Objectives

Descriptor: A short booklet designed to help educators choose among objectives.

Publication Date(s): 1972, 24 pp.

Originator: R. E. Stake

Intended Users: Administrators, evaluators, curriculum developers, and teachers who use objectives-based materials.

Purpose: The purpose of this reference is to present a step-by-step system for determining the importance of individual objectives. The system involves the application of criteria in the selection of objectives.

Content: This reference contains explanations of four key criteria which may be applied in the prioritization of objectives. The criteria are:

- need
- resource allocation
- payoff probability
- special conditions

Sample worksheets are supplied to exemplify the process one goes through in applying each criterion. The results of this application are used to determine priorities.

Usefulness Related to CBE: This reference provides a short, handy method for determining priorities among objectives. It could be used in a CBE context by instructional personnel to help them select from objectives they have generated or from an existing collection of objectives.

Related Materials:

- IOX Measurable Objectives Collection (See A 1.5)

Ordering Information: This booklet is available from:

Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost is $1.00 per copy

Blank priorities planning worksheets are also available from IOX.

OUTCOMES -- REFERENCES A 4.5

Title:	Schools and Communities: Setting Goals
Descriptor:	A booklet for schools that want to involve the community in goal setting.
Publication Date(s):	1976, 39 pp.
Originator:	Oregon State Department of Education
Intended Users:	School district personnel and citizens who wish to locate information about community involvement in goal setting.
Purpose:	Developers state the purposes of this booklet as follows: 1. to provide background information about goal setting in Oregon and information about the goal strategies found in the booklet 2. to provide descriptions about seven strategies for setting district-level goals, two strategies for setting program and course-level goals, and three procedures for conducting community surveys.
Content:	The descriptions of goal setting strategies contain indepth information organized around the following headings: o source o site o administration o product o procedure o utilization o cost o comment Descriptions of the community survey techniques utilize all of the above categories with the exception of "source" and "site". The Planning, Evaluation, and Assessment Section of the Oregon Department of Education will supply a Workshop Coordinator's Guide and two slide-tape presentations to school districts who wish to conduct goal setting workshops. These materials are keyed to the contents of this booklet.
Usefulness Related to CBE:	This booklet describes several alternative strategies that could be used to involve district citizens in goal setting.

Related Materials: None

Ordering Information: Copies are available from:

Documents Clerk
Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

Cost: Unavailable at time of printing.

Title:	Educational Objectives #1
Descriptor:	A filmstrip-tape program for teachers which analyzes the attributes and advantages of measurably stated instructional objectives.

*This product is cross-referenced in this sourcebook. See A 2.14 for a complete description.

Title: Stating Behavioral Objectives for Classroom Instruction

Descriptor: A practical guidebook designed to instruct the educator in the preparation of instructional objectives.

Publication Date(s): 1975 (15th Printing), 58 pp. + appen.

Originator: Norman E. Gronlund, Professor of Educational Psychology, University of Illinois

Intended Users: For use by teachers as a practical guide for preparation of instructional objectives; also appropriate for pre-service courses.

Purpose: Goals: There are no specific goals stated for the book. The author describes the approach presented as one which "rests on the assumption that effective teaching and testing require a clear conception of the desired learning outcomes."

Objectives: No specific objectives are stated, but again in reference to the approach presented in the book, the author states that it is "one that would include statements of objectives that were general enough to provide direction, without overly limiting the instructional process and specific enough to be clearly defined by the behavior that students were to exhibit when they had achieved the objectives."

Content: Chapters 1-3 investigate the identification and definition of learning outcomes. Chapter 4 describes implications for the "Taxonomy of Educational Objectives." Chapter 5 explains the selection process and Chapters 6-8 apply objectives to use in classroom instruction, test preparation, and grading.

There are three appendices: (a) check list for evaluating objectives; (b) verbs for use in writing behavioral objectives; and (c) reference guides.

Usefulness Related to CBE: This book is most helpful to teachers in clarifying and understanding typical problems of writing behavioral objectives.

Related Materials: None

Ordering Information: Write: The Macmillan Company
866 Third Avenue
New York, New York 10022

Cost: $2.25

OUTCOMES -- REFERENCES A 4.8

Title:	Developing and Writing Performance Objectives
Descriptor:	A booklet describing a system for developing and writing performance objectives.
Publication Date(s):	1971, 41 pp. + appen.
Originator:	Educational Innovators Press
Intended Users:	Educators at all levels who wish to learn to develop and write performance objectives.
Purpose:	The goal of this booklet is to help educators answer questions about the quality and effectiveness of education they are providing their students.
Content:	The booklet contains five chapters: 1. An Organizational Structure of Variables Influencing Educational Programs 2. Behavior 3. How to Measure Behavior 4. Critiquing Performance Objectives 5. Writing Performance Objectives A model containing institutional, instructional, and behavioral variables is presented to account for outcomes of educational programs. Concepts of Bloom, Krathwold and Dave are used to specify behavioral outcomes. Self-tests and summaries are included to help readers test their mastery of the concepts presented in the booklet.
Usefulness Related to CBE:	This booklet presents an approach to the development and writing of performance objectives that could be used either as orientation or review material in a CBE context.
Related Materials:	o Developing and Writing Process Objectives (See A 4.9)
Ordering Information:	Write: Educational Innovators Press P.O. Box 13052 Tucson, Arizona 85711 (602) 795-4210 Cost: $1.50 per copy

Title: Developing and Writing Process Objectives

Descriptor: A booklet describing a system for developing, writing, and monitoring process objectives.

Publication Date(s): 1972, 40 pp. + appen.

Originator: Educational Innovators Press

Intended Users: Educators who want to learn to document processes supporting the implementation of new programs.

Purpose: The goal of this booklet is to help educators learn a system of developing, writing, and monitoring process objectives within an accountability framework.

Contents: The booklet contains five chapters:

1. Components of Accountability
2. Elements of Process Objectives
3. Administration, Support, and Instructional Process Objectives
4. Developing Summary Charts and Monitoring Process Objectives
5. Quality Statements in Process Objectives

Review tests are included to help readers test their mastery of the concepts presented in the booklet.

Usefulness Related to CBE: This booklet presents an approach to the development and writing of process objectives that could be used to establish process objectives for a CBE program.

Related Materials:

- Developing and Writing Performance Objectives (See A 4.8)

Ordering Information:

Write: Educational Innovators Press
P.O. Box 13052
Tucson, Arizona 85711
(602) 795-4210

Cost: $1.50 per copy

Title: Instructional Objectives

Descriptor: A monograph series providing educators with a topical discussion of issues related to instructional objectives.

Publication Date(s): 1970 (Second Printing), 142 pp.

Originator: W. James Popham, University of California, Los Angeles, Elliot W. Eisner, Stanford University, Howard J. Sullivan, Arizona State University, Louise L. Tyler, University of California, Los Angeles, Divisional Committee of American Educational Research Association (AERA)

Intended Users: Anyone in education interested in issues that are associated with instructional objectives.

Purpose: The authors state that at the time of writing there was a clear "need to discuss these issues in the open educational forum."

Content: The series includes the following titles:

1. "Instructional and Expressive Educational Objectives: Their Formulation and Use in Curriculum," Elliot W. Eisner
2. "Objectives and Instruction," W. James Popham
3. "Objectives, Evaluation, and Improved Learner Achievement," Howard J. Sullivan
4. "A Case History: Formulation of Objectives from a Psychoanalytic Framework," Louise L. Tyler

Each of the papers is followed by a discussion and brief epilogue written by the authors.

Usefulness Related to CBE: As interest in CBE is raised, so is there an increasing need for discussion of issues which are commonly raised in initial stages.

Related Materials: This document is part of a larger monograph series on Curriculum Evaluation. The other documents include:

- Perspectives of Curriculum Evaluation, Ralph Tyler, Robert Gagne, and Michael Scriven
- Evaluation Activities of Curriculum Projects, Hulda Grobman
- Research Strategies for Evaluating Training, Philip DuBois and Douglas Mayo (Eds.)
- Evaluation as a Tool in Curriculum Development: The IPI Evaluation Program, C.M. Lindvall and Richard Cox

Related Materials: (Cont.)	o Classroom Observation, James J. Gallagher, Graham A. Nuthall, and Barak Rosenshine
Ordering Information:	Write: Rand McNally and Company P.O. Box 7600 Chicago, Illinois 60680 (312) 673-9100
	Cost: No information is available.

Title:	Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives
Descriptor:	A procedural guidebook to assist pupil personnel staff in developing measurable objectives.
Publication Date(s):	1971, 113 pp. + appen.
Originator:	Robert O'Hare, Southwest Regional Laboratory for Educational Research and Development (SWRL), and Howard J. Sullivan, Arizona State University (Eds.)
Intended Users:	Educators in local schools who wish to develop measurable objectives.
Purpose:	The authors state that, "To begin with, we had to accept the proposition that along with other aspects of education, pupil personnel services should be accountable, should have clearly stated goals and objectives, and should produce measurable outcomes." The authors contend that if procedures outlined in the guide are followed as suggested, users should be able to make a clear distinction between "objectives with functions, or means with ends."
Content:	The six chapters in this reference provide a framework involving the major steps in developing, operating, and managing an objectives-based program. There are several appendices as follows: (1) four levels of responsibility for guidance programs, (2) criterion variables for the evaluation of guidance practices, (3) flow chart of performance of objectives for educational guidance, (4) counselor responsibility survey form for distribution to students, parents, teachers, and administrators, (5) sample guidance objective written by task force, (6) definition of terms and goal statements from Kern High School District, (7) sample goal statements from Santa Ana Unified School District, and (8) a chart used by Culver City Unified School District for identifying and treating problems based on needs.
Usefulness Related to CBE:	This reference provides specific information relative to procedures for accountability and developing objectives. To date, the paucity of materials for this area has made program development difficult.
Related Materials:	o Evaluating Pupil Personnel Programs (See A 4.12)

Ordering Information:

Write: California Personnel and Guidance Association
654 East Commonwealth Avenue
Fullerton, California 92631

Cost: $3.50 (members)
$5.00 (others)

Title:	Evaluating Pupil Personnel Programs
Descriptor:	A monograph discussing issues and procedures for guidance program evaluation.
Publication Date(s):	1971, 97 pp.
Originator:	Robert O'Hare, Southwest Regional Laboratory for Educational Research and Development (SWRL), and Barbara Lasser, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	Pupil personnel staff who wish to develop a systematic evaluation strategy applicable at all educational levels.
Purpose:	A series of steps is presented from which users are encouraged to choose based upon school or district background and needs.
Content:	The reference is divided into two sections: Section I, Major Issues in Evaluation, discussing major problems and current trends; and Section II, Designing Strategies for Improved Evaluation, describing implementation of "pupil based evaluation" programs. In an introductory statement, the authors state that "Examples of evaluation studies are provided within two contexts: (1) guidance services, and (2) the learning process in the classroom." They contend that "Examples from classroom learning provide a useful analogy and emphasize the need for counselors to become more thoroughly involved in the learning process."
Usefulness Related to CBE:	The information in this reference should help to fill a void in the area of objectives development. For any given situation, the procedures described will provide a starting point in planning.
Related Materials:	o Accountability in Pupil Personnel Services: A Process Guide for the Development of Objectives (See A 4.11)
Ordering Information:	Write: California Personnel and Guidance Association 654 East Commonwealth Avenue Fullerton, California 92631 Cost: $2.50 (members) $3.50 (others)

Measuring Outcome Attainment

CBE program implementation will be facilitated if outcome attainment measures are designed after outcomes are specified and before instruction is determined.*

Measures of outcome attainment may take a variety of forms, and may be administered in a variety of settings. The use of multiple measures to assess attainment of a given outcome is often desirable. Where "life-relevant" competencies are being assessed, measurement may more and more frequently be conducted in natural settings. It is essential that test items or other evaluation vehicles measure attainment of the instructional outcomes that have been specified. Measures of outcome attainment are appropriate if they:

1. require students to perform as specified in the outcome.

   For example, for the outcomes, "Given examples of orchestra instruments played in solo, the student will name the family to which the instrument belongs," an item which requires that student to name the specific instrument rather than the family would be inappropriate.

2. present the content as specified in the outcome.

   For example, in the preceding illustrative outcome, an item which presented the example in concert rather than in solo would be inappropriate.

3. present the full range of content specified by the outcome requirements.

   For example, in the preceding illustrative outcome, each family of instruments should be sampled, i.e., strings, woodwinds, percussion, and brass.

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*The process of selecting or writing performance measures to assess outcome attainment may lead to revision of some outcomes. This might occur, for example, because an outcome as stated is not measurable, or because the process of writing the performance measure suggests that an outcome is either undesirable or subsumed by other outcomes.

4. call for performance in a mode appropriate for the student.

For example, in the same illustrative outcome, it would be appropriate to expect the student to say aloud, mark, or write the family name. It would be inappropriate in any mode that students are unlikely to be able to perform.

Clearly articulated, appropriate measurement items, or other vehicles for measuring outcome attainment, are critical in competency based programs. Such programs require reliable data related to students' attainment of goals for two purposes: (1) to judge the effectiveness of the instruction that is designed to promote goal attainment; and (2) to assess individual students' performance with respect to the stated outcomes. Reliable data can be used to make decisions regarding instructional materials or procedures, adjustments in pupil placement, and comparisons among competing instructional sequences.

Although outcomes are identified most frequently before test items or specific measurement vehicles are selected or designed, measurement item selection or test construction sometimes is conducted first. In such instances, outcomes then are written to correspond with the test items. Some available collections feature both outcome statements and corresponding test items, enabling users to select outcomes and items concurrently.

This section of the CBE Sourcebook describes materials and resources that will facilitate the process of item selection, test construction, and program evaluation:

B 1 Available Materials--available item banks and test construction services.

B 2 Selection Procedures--products which assist the user in selecting resources from available item banks or test construction services.

B 3 Developmental Instructions--products which assist the user in the design and development of items, tests, and evaluation systems.

B 4 References--references which provide information related to item and test construction and program evaluation.

Title:	A Collection of Criterion-Referenced Tests: ERIC/TM Report #31
Descriptor:	An annotated bibliography of 21 criterion-referenced tests available to program evaluators.
Publication:	December 1974, 13 pp.
Originator:	Joan Knapp, Commissioned Author, ERIC Clearinghouse on Tests, Measurement, and Evaluation, Educational Testing Service (ETS), New Jersey
Intended User:	Program evaluators, curriculum specialists, measurement and evaluation specialists, or anyone else involved in program and curriculum evaluation.
Purpose/ Content:	Each of the test entries in the bibliography includes the following information: description, format and administration, response mode and scoring, technical information, and references. A brief discussion is also given of the advantages, limitations, and uses of such tests.
Usefulness Related to CBE:	There is considerable disagreement about the definition and use of criterion-referenced tests. The information provided in this biliography would be of value when deciding whether a criterion-referenced test is most appropriate for various purposes.
History of Development:	These tests were brought together in an attempt to establish a collection within the ERIC system under the subject heading, "criterion-referenced tests."
Related Materials:	None
Ordering Information:	Copies are available without charge from the originator as long as supplies last, OR They are available (Order No. IM 004 304) from: ERIC Document and Reproduction Service P.O. Box 190 Arlington, Virginia 22210 Cost: $.75 (microfiche), $1.50 (hardcopy)

Title: IOX Objectives-Based Test Collections

Descriptor: Thirteen objectives-based test sets in four subject areas.

Publication Date(s): Continuous development since 1972

Originator: Instructional Objectives Exchange (IOX), UCLA Center for the Study of Evaluation (CSE)

Intended Users: Most of the test sets are designed for use at the elementary level.

Purpose/Content: Test sets cover four subject areas:

- o Reading
    1. Word Attack Skills, K-6
    2. Comprehension Skills, K-6
- o Language Arts
    1. Mechanics and Usage, K-6
    2. Word Forms and Syntax, K-6
    3. Composition, Library, and Literary Skills, K-6
- o Social Studies
    1. American Government, 10-12
- o Mathematics
    1. Sets and Numbers, K-6
    2. Operations and Properties, K-6
    3. Numeration and Relations, K-6
    4. Measurement, K-6
    5. Geometry, K-6
    6. Elements, Symbolism, and Measurement, 7-9
    7. Geometry, Operations, and Relations, 7-9

Each test set consists of the following:

- o description and use statement -- describes the development of IOX criterion-referenced tests.
- o test manual -- describes tests and suggests general procedures for administration and scoring. It also illustrates a precisely stated objective, sample item, and amplified objective for each test.
- o scoring guide -- lists answers for each test.
- o pre-printed spirit master tests (30-40 tests in each set).

Each test set is available in two content-parallel forms (A and B) which are boxed and priced separately. This is done to "allow precise evaluation for individuals, schools, or whole districts: pre- and posttesting can be done to measure skill accuracy."

Each test is made up of items written according to stipulations included in a detailed goal statement called an amplified objective (expanded statement of a specific behavioral objective). These allow the teacher to describe exactly what learner behaviors are necessary for answering the test items correctly.

Usefulness Related to CBE: Because of the ready-to-use format of these tests they will undoubtedly be a time-saver for the classroom teacher. Exposure to these tests through use in the classroom may be helpful to the teacher in developing other tests as needed using the IOX format.

History of Development: In 1968 IOX began making booklets which contained collections of measurable instructional objectives and related test items available to schools. The next step was to provide readily used support materials, specifically, objectives-based tests.

The development procedures described indicate that after category and content general objectives have been selected a teacher is brought in from the field to spend a day reviewing the test. After this, the forms are developed and another review is made by another practicing educator, typically a teacher with the subject expertise. Members of the staff (other than those who developed the tests) administer the test as a tryout with a limited number of students. Revisions are made on the basis of this field test. Emphasis is not on extensive field tests with reliability and validity coefficients. Instead, the strategy emphasizes content validity with respect to the match between test items and the amplified objectives which they are designed to measure.

Related Materials:

- o Procedural Guidelines -- Developing IOX Objectives-Based Tests, Technical Paper No. 8, W. James Popham, August 1972

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: 13 sets available
$45.00 per set (Forms A and B)
$25.00 per set for individual forms A or B

MEASURES -- AVAILABLE MATERIALS B 1.3

Title: The Northwest Evaluation Association Item Bank Collections

Descriptor: Collections of measurement items in reading, mathematics, language arts, and reading available in hard copy and computer-based format.

Publication Date(s): These collections will be available in June 1977 and will be updated annually thereafter. The items in the collections are not copyrighted.

Originator: The Northwest Evaluation Association (NWEA)

Intended Users: Teachers and other test constructors in the development of survey and mastery tests.

Purpose/ Content: Items in the collections are referenced to the Tri-County Goal Development Project Course Goal Collections (See A 1.1). These collections identify the goals within a specific subject area and are arranged according to carefully constructed taxonomic blueprints for the subject. The computer version of the collections makes it possible to retrieve identifying and statistical information for all items referencing specified goals, and to produce goal referenced reports indicating student and classroom mastery of the goals represented on the test.

Items in these collections are in multiple-choice (four- or five-response) format. There are approximately 1,000 items in mathematics and approximately 1,000 items in reading and language arts spanning grades 3-8. The selection of items for the bank has been targeted for the basic skills goal areas in mathematics, reading, and language arts at the indicated grade levels. Items in the collections are appropriate for survey and mastery testing purposes.

The hard copy version is printed on index cards for use by teachers and test developers. These cards come with a template and can be arranged in test format for photocopying so that items do not need to be retyped.

The computer version of the collections (banks) is intended for measurement specialists and consists of the content and statistical information for the items in the collections and a series of programs for retrieving and updating the banks as well as maintaining inventory control. The supporting computer programs make it possible to develop content coverage and performance information for all tests based on items drawn from the bank, as well as creating the computer job setups necessary to machine score student answer sheets. In the current version, it is not possible to print tests via the computer system,

Purpose/ Content: (Cont.)	so the hardcopy version is the sole resource for item reproduction. The statistical information available for an item includes its difficulty as calibrated on the continuum for that subject, its average discrimination, and its fit-to-the-item characteristic curve. Items can be retrieved from the banks by specified goal difficulty level to insure the appropriateness of items for specified ability or achievement groups.
Usefulness Related to CBE:	The items in the collections are indexed with respect to content coverage (learning goals) and difficulty (calibrated continuum). The collection is ideally suited to the development of CBE related tests when using the Tri-County course goals. The computer version makes it possible to produce goal-referenced reports indicating student and classroom mastery of the goals represented in the tests.
History of Development:	The items in these collections were contributed to The Northwest Evaluation Association by school districts throughout the states of Washington and Oregon. Prior to acceptance into the bank, all items were field tested one or more times. Items with low discrimination (point biserials below .30) or questionable performance (widely fluctuating difficulty calibrations) have been deleted from the collections. The banks have been used on an experimental basis to develop tests in reading and mathematics in the Portland (Oregon) Public Schools and in language arts in North Clackamas (Oregon) Public Schools.
Related Materials:	o Tri-County Goal Development Project Course Goal Collections (See A 1.1)
Ordering Information:	Write: Dr. Fred Forster, Executive Secretary Northwest Evaluation Association 631 N.E. Clackamas Portland, Oregon 97208 (503) 234-3392 Cost: Information will be available in June 1977 for both the computer-based and hardcopy versions of these collections.

Title: Clark County Criterion-Referenced Tests

Descriptor: A set of criterion-referenced tests in mathematics and reading.

Originator: Clark County School District, Las Vegas, Nevada

Intended Users: Teachers and evaluation specialists who are acquainted with behavioral objectives in reading and mathematics as provided in Clark County School District curriculum guides.

Purpose/Content: The tests are designed specifically to measure behavioral objectives as written in curriculum guides for reading and mathematics.

Usefulness Related to CBE: When used in conjunction with appropriate curriculum guides from the district, these instruments provide the teacher with a means of measuring individual students' performance as stated in written educational objectives.

History of Development: Test items were constructed relating to objectives written in curriculum guides provided by the district (See A 1.8). As tests were produced they were sent to CTB/McGraw-Hill and edited, based on well-established rules for writing test items.

A testing sample of district students was chosen for field testing. They were tested twice. Pre- and posttest performance were analyzed and items checked to determine the success of instruction.

CTB/McGraw-Hill and school district personnel used this data to evaluate items individually, selecting two items per objective for the final version.

Related Materials:
- Mathematics Curriculum Guide K-6 (See A 1.8.4)
- Reading Guide and Selected Multimedia 1-12 (See A 1.8.8)

Ordering Information:

Write: D.L. Bundren, Director
Research and Development Department
Clark County School District
2832 East Flamingo Road
Las Vegas, Nevada 89121
(702) 736-5011

Cost: The cost of individual tests is included with each description.

The following section (B 1.4.1 - B 1.4.8) includes individual Clark County Criterion-Referenced Tests as described above.

MEASURES -- AVAILABLE MATERIALS B 1.4.1

Title:	Clark County Mathematics Tests
Descriptor:	Tests which assess student mastery of behavioral objectives as provided in the Clark County Mathematics Curriculum Guide K-6 (See A 1.8.4).
Publication Date(s):	1974
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	To be used by classroom teachers. The tests consist of levels B-G, each one including one test book per student and one Examiner's Manual. The tests are not timed and should be administered in three sittings on different days as follows: Sitting I -- Practice Test; Sitting II -- Part One; and Sitting III -- Part Two.
Usefulness Related to CBE:	See B 1.4 for usefulness statement.
History of Development:	See B 1.4 for history statement.
Related Materials:	See B 1.4 for related materials.
Ordering Information:	See B 1.4 for address of distributor. Cost: Level B, Grade 1 $1.00 Level C, Grade 2 1.00 Level D, Grade 3 1.00 Level E, Grade 4 1.00 Level F, Grade 5 1.00 Level G, Grade 6 1.00

Title:	Mathematics Management Placement Test: Grades 3-6
Descriptor:	A test of elementary mathematics skills to assist teachers with student diagnosis.
Publication Date(s):	No date given.
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	To be used by classroom teachers. Only the most difficult skills are included, and breakdown ranges are identified to show where a student should begin using the Mathematics Management System Diagnostic Step Tests (see following entry). The test is not timed and should be administered in at least two sittings.
Usefulness Related to CBE:	See B 1.4 for usefulness statement.
History of Development:	See B 1.4 for history statement.
Related Materials:	See B 1.4 for related materials.
Ordering Information:	See B 1.4 for address of distributor. Cost: $1.00

MEASURES -- AVAILABLE MATERIALS B 1.4.3

Title: Mathematics Management System Diagnostic Step Tests

Descriptor: Tests (48) which help the teacher diagnose and identify specific skills.

Publication Date(s): June 1975 (Revised Edition)

Originator: Clark County School District, Las Vegas, Nevada

Intended Users/Purpose/Content: To be used by classroom teachers. Most of the skills are tested with three items, and are included in six strands or major areas of mathematics, which are: number, numeration, operations, geometry, measurement, and problem solving. The tests are not timed and require only one sitting. Materials include one test book per student and one Examiner's Manual.

Usefulness Related to CBE: See B 1.4 for usefulness statement.

History of Development: See B 1.4 for history statement.

Related Materials: See B 1.4 for related materials.

Ordering Information: See B 1.4 for address of distributor.

Cost: $35.00

MEASURES -- AVAILABLE MATERIALS B 1.4.4

Title: Basic Mathematics Competency Test (Grades 7 and 8)

Descriptor: A multiple-choice test used to diagnose student weaknesses in mathematics skills needed for survival in adulthood.

Publication Date(s): 1974

Originator: Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: To be used by classroom teachers. There are 46 multiple-choice questions which are normally completed in one hour (no time limit is set, however). The test was locally developed to measure skills which were seen essential to function in our society.

Usefulness Related to CBE: See B 1.4 for usefulness statement.

History of Development: See B 1.4 for history statement.

Related Materials: See B 1.4 for related materials.

Ordering Information: See B 1.4 for address of distributor.

Cost: $1.00

MEASURES -- AVAILABLE MATERIALS B 1.4.5

Title:	Experimental Procedures Used to Field Test Mathematics Criterion-Referenced Tests for Clark County, Nevada
Descriptor:	A detailed description of steps taken toward quality control evaluation of items in mathematics tests.
Publication Date(s):	1974
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	The description provides discussion of the following: production of the testing instruments; instrument characteristics and measurement issues; analysis of pretest and posttest data; and test data and item selection. It also includes exhibits of data gathered and samples of the pretest and posttest.
Usefulness Related to CBE:	See B 1.4 for usefulness statement.
History of Development:	See B 1.4 for history statement.
Related Materials:	See B 1.4 for related materials.
Ordering Information:	See B 1.4 for address of distributor. Cost: $4.00

MEASURES -- AVAILABLE MATERIALS B 1.4.6

Title:	Clark County Reading CRT, Grades 2-4
Descriptor:	A test designed to measure student competency of specified behavioral objectives provided by the district.
Publication Date(s):	1973
Originator:	Clark County School District and Westinghouse Learning Corporation
Intended Users/ Purpose/ Content:	To be used by classroom teachers. Test items are keyed to certain objectives listed in the Clark County School District Reading Guide and Selected Multimedia 1-12 (See A 1.8.8) Materials include one test book per student and one Administrator's Manual. The test is not timed and is recommended to be administered in three sittings, one for each part.
Usefulness Related to CBE:	See B 1.4 for usefulness statement.
History of Development:	See B 1.4 for history statement.
Related Materials:	See B 1.4 for related materials.
Ordering Information:	See B 1.4 for address of distributor. Cost: Grade 2 $1.00 Grade 3 1.00 Grade 4 1.00

Title: Reading Management System Placement Test

Descriptor: Three multiple-choice, criterion-referenced tests of elementary reading skills designed to assist the teacher in student diagnosis.

Publication Date(s): 1975 (Revised); 1973

Originator: Clark County School District, Las Vegas, Nevada

Intended Users/ Purpose/ Content: There are three placement tests, each one accompanied by a Teacher's Manual. These tests are to be used in conjunction with Reading Management System Diagnostic Step Tests (See B 1.4.8). Each one covers one group of reading skills as identified in the Reading Management System Diagnostic Step Tests as follows: Placement Test #1 covers those skills from Step 1 through Step 28; Placement Test #2 covers Step 1 through Step 37; and Placement Test #3 covers Step 1 through Step 42.

Three factors were considered in choosing test items: (1) difficulty, (2) importance, and (3) good field test data.

Scores on these tests show the range where a student is breaking down, e.g., step range 7-10. The teacher then begins to diagnose that pupil's specific strengths and weaknesses using any of the Reading Management System Diagnostic Step Tests in that range.

Usefulness Related to CBE: See B 1.4 for usefulness statement.

History of Development: See B 1.4 for history statement.

Related Materials: See B 1.4 for related materials.

Ordering Information: See B 1.4 for address of distributor.

Cost:		
	Level One	$3.00
	Level Two	3.00
	Level Three	3.00

MEASURES -- AVAILABLE MATERIALS B 1.4.8

Title:	Reading Management System Diagnostic Step Tests
Descriptor:	Criterion-referenced tests (42) which help the elementary teacher diagnose and identify specific skills.
Publication Date(s):	January 1975 (Revised Edition)
Originator:	Clark County School District, Las Vegas, Nevada
Intended Users/ Purpose/ Content:	To be used by elementary teachers. Directions are provided for developing answer sheet readiness, scoring answer sheets, and test administration.
Usefulness Related to CBE:	See B 1.4 for usefulness statement.
History of Development:	See B 1.4 for history statement.
Related Materials:	See B 1.4 for related materials.
Ordering Information:	See B 1.4 for address of distributor. Cost: $35.00

Title: Project TORQUE: A New Approach to the Assessment of Children's Mathematical Competence

Descriptor: A collection of criterion-referenced tests to help teachers evaluate mathematics skills of individual learners at the upper elementary level.

Publication Date(s): 1976

Originator: Education Development Center, Inc.

Intended Users: Any elementary teacher seriously concerned about moving toward criterion-referenced testing.

Purpose/Content: TORQUE is an acronym for Tests of Reasonable Quantitative Understanding of the Environment. The test items are actually games and activities specially designed to assess the learner's understanding of mathematical concepts. The authors contend that use of this approach results in a more positive reaction to testing from learners. In addition it has considerable impact on learner motivation.

Each of the games are referred to as "validating instruments." The authors state that the main purpose is to "validate a set of shorter test items measuring the same concept or skill. In other words, when TORQUE has developed what it thinks is a short-form, easy-to-administer test of a (mathematical) concept, (the game) will serve to tell if the new test is in fact measuring students' understanding."

A Diagnostic Achievement Test is administered as a means of identifying the student mathematical ability and providing a record of student performance. This performance is then correlated with that of the performance on the game which together will establish validity for the Diagnostic Achievement Test.

The approach used by TORQUE is not intended to be restricted to a level or subject area. The concern is more with developing guidelines and principles.

Certain criteria were identified as essential to a good testing program:

- useful for individual learning styles
- little or no reliance on cultural background
- avoid emphasis on reading
- ease of student response
- usefulness as a diagnostic tool
- widespread use will not decrease test value
- allows student to feel free of threat and anxiety

Usefulness Related to CBE: The results of these tests are criterion-referenced. performance indicators provide the basis to reflect student level of achievement.

History of Development: A 17-step process is followed in test development:

1. Meet with teachers to discuss content, student strengths, design, etc.
2. Talk with children about design
3. Clinical trial and cross validation with children
4. Revision
5. Teacher workshops for training
6. Classroom tryouts
7. Teacher workshops for debriefing
8. Revision
9. Design of Diagnostic Achievement Tests
10. Clinical trial of Diagnostic Achievement Tests
11. Discussion with children who have taken the tests
12. Revision
13. Teacher workshops to prepare for test administration
14. Classroom tryouts of both instruments
15. Teacher workshops for debriefing; analysis of results
16. Setting of criteria for scoring
17. Final design and publication

Learners screen the games and tests in clinical as well as regular classroom settings. Over 1,000 learners from different cultural settings used these tests during 1975-76. Classroom teachers also were involved directly in the development and testing of games.

Related Materials: None

Ordering Information: Write:

John C. Hayden
Education Development Center, Inc.
55 Chapel Street
Newton, Massachusetts 02160
(617) 969-7100 Ext. 436

Cost: Not given.

Title:	Pupil-Perceived Needs Assessment Package
Descriptor:	A multimedia package to aid in the design and implementation of an assessment of school needs as perceived by pupils.

*This product is cross-referenced in this sourcebook. See A 2.2 for a complete description.

MEASURES -- SELECTION PROCEDURES B 2.2

Title: Project Management Executive Orientation

Descriptor: A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

*This product is cross-referenced in this sourcebook. See A 2.3 for a complete description.

MEASURES -- SELECTION PROCEDURES B 2.3

Title:	CSE Summative Evaluation Kit
Descriptor:	An instructional kit for anyone involved in carrying out program evaluation.
Publication Date(s):	No date given (A Third Printing will be available in late 1976)
Originator:	Center for the Study of Evaluation (CSE), Graduate School of Education, University of California, Los Angeles
Intended Users:	Anyone given the task of designing and carrying out a program evaluation. This person might be a classroom teacher, a principal, a director of specially funded programs, or a district evaluator.
Purpose:	Goals: The main goals of this kit are both procedural and substantive. The kit aims to improve practice in evaluation by providing local practitioners with step-by-step procedures for accomplishing their own evaluations. Use of the kit should make local evaluators more independent of outside consultant help, and educate them about the procedures needed to perform a summative evaluation. Since the kit contains a substantial amount of conceptual information, its use should make the practitioner more conversant about major concepts and issues in evaluation and measurement. In addition to its directive function, the kit can and has been used as the basis of workshops and whole courses on the topic of evaluation and educational research. Objectives: There are no objectives specifically stated for the kit.
Content:	The kit is a set of procedural guides containing step-by-step instructions for accomplishing major tasks involved in conducting a program evaluation, for example, planning the evaluation, articulating goals, selecting a design, and measuring achievement. The kit contains an audio tape describing evaluation tasks whose secondary purpose is to change attitudes -- or at least ease apprehension -- toward evaluation.
Usefulness Related to CBE:	The kit would be useful for planning and conducting evaluation of a CBE Program. In addition to purely summative evaluation, the kit has been used extensively by formative evaluators and by persons conducting needs assessments.
History of Development:	Many of the procedures described in the kit have been demonstrated to be generalizable over a wide range of evaluation related tasks. The kit's introductory tape has been used in some settings as an introduction to evaluation for program personnel and evaluation staff. The line drawing

History of Development: (Cont.)

illustrations from the accompanying booklet have lent themselves to easy reproduction on overhead transparencies. Though the kit is part of the CSE Elementary School Evaluation Kit Series, its procedures, with little modification, have been used in secondary and even non-educational settings.

Main Activities:

Users of the kit listen to an introductory tape which describes the CSE Evaluation Model, discusses the value of evaluation as a basis for rational decision making in the schools, outlines the roles an evaluator might assume, and discusses the use of design in evaluation. An accompanying booklet illustrates the concepts described in the tape. The tape assists the user to use one of two step-by-step guides to direct the planning and execution of evaluation. The "Step-by-Step Guide for the Evaluation of Pull-Out Programs" fits evaluation situations where a set of preconditions including defining target groups and program cycles can be met. It then directs the conduct of an entire evaluation, start to finish, providing statistical test procedures and a final report outline to fit the design used. The longer "Step-by-Step Guide for Conducting a Summative Evaluation" is designed to fit any program evaluation situation. Its user proceeds by filling out work-sheets defining the program and requesting the results of evaluation activities. At points in the Guide where expertise is needed to make a decision, or where a particular procedure needs to be carried out (such as selecting an evaluation design or constructing a criterion-referenced test), the user is referred to one of the kit's eight "How-To" booklets. These booklets cover the following topics:

1. How to Select a Design, Display and Interpret Results
2. How to Randomize
3. How to Articulate Goals, Outcomes, and Objectives
4. How to Measure Achievement
5. How to Measure Attitudes
6. How to Document the Program
7. How to Calculate Statistics and Also Understand Them
8. How to Present an Evaluation Report

The "How-To" booklets contain step-by-step procedures for performing program evaluation tasks, and also provide non-technical background information concerning why and what the procedures accomplish, as well as advice for overcoming logistical and attitudinal stumbling blocks often encountered in evaluation and measurement.

Using the Step-by-Step Guides, the "How-To" booklets, an accompanying Measurement Wall Chart, and a Handy Randomizing deck of cards, the kit user can engage in every activity needed for a program evaluation. On the other

Main Activities: (Cont.)	hand, a person who does not need extensive guidance in conducting an evaluation or whose task is formative evaluation or merely the design of a measurement instrument can easily use the kit as a reference source, consulting Guides and "How-To" booklets to meet particular needs.
Provisions for Use:	Format: Can be used as a self-help tool, in on-the-job situations by groups or individuals entrusted with an evaluation, or it can be used as a training tool in a workshop or course setting. Personnel: The kit requires no one to assist the on-the-job user. Courses and workshops using the kit should be run by someone with some evaluation and/or measurement training. Product Components: The entire 10-booklet set with ancillary materials is best used intact. Time Span: Time span and extent of kit use is completely determined by the user.
Conditions of Use:	Kit users in on-the-job settings should have a commitment to spending time conducting a quality evaluation. Kit users are expected to have mastered basic algebra and have available a tape cassette player and a hand calculator. Though designed for on-the-job use, the kit can be adopted as a course or workshop text. Use of the kit in this manner demands that the instructor be familiar with the kit's contents, have some minimal training in issues and concepts in program evaluation, measurement, and educational research, and have the commitment and ability to structure workshop experiences or college courses.
Related Materials:	o CSE Elementary School Evaluation Kit: Needs Assessment (See A 2.1) o CSE Elementary School Program Planning Kit (in press)
Ordering Information:	Write: CSE Field Services Center for Study of Evaluation School of Education UCLA Los Angeles, California 90024 Cost: $35.00

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title:	Curriculum and Instruction: Planning Improvement
Descriptor:	A training package to assist school personnel in identification of suitable and feasible program improvements.
Publication Date(s):	No date given
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	School district administrators and teachers, working as a team.
Purpose:	Goals: This workshop model is intended to provide a means for identifying feasible curriculum improvements suitable for the school district. Objectives: The main objectives include: o Team carries out complete process of identifying means of curriculum improvement. o Means of improvement identified are compatible with school or district requirements.
Content:	The package includes procedural guides, work aids, and examples adopted from actual school district practices. Staff attention is focused on defining student needs, determining improvement requirements, and searching for means of improvement. The workshops also provide staff development experiences.
Usefulness Related to CBE:	This product would be most useful for revising instruction to correspond with student outcomes after outcomes and performance measures have been established.
History of Development:	Information not available at this time.
Main Activities:	o Team clarifies student needs. o Team establishes requirements for curriculum improvement. o Team plans and conducts search for alternative means of improvement.
Provisions for Use:	Format: Team participants work as a group in on-the-job situations. Personnel: A group coordinator and three to six participants. No special expertise is required. Product Components: o Curriculum and Instruction: Planning Improvement. Contains three sections: Defining Student Needs; Establishing Improvement Requirements; and Planning and Conducting the Search. A separately bound Planning Coordinator's Manual is included, also.

Provisions for Use: (Cont.)

- Curriculum and Instruction: A Guide to Alternatives. Contains three separately bound annotated listings of various information sources which may be consulted in a search for student learning materials, staff development programs, and/or resource allocation methods. Some specific staff development programs and resource allocation methods are described, also. A master index is provided.

Time Span: About 25 hours is needed for an individual to read materials, and from two to three months for a team to carry out a planning project.

Conditions of Use:

The package is intended for on-the-job applications. A team approach is strongly recommended but not required. A typical team may include a group coordinator (often a curriculum coordinator), one or two district/school administrators, one or two teachers, and perhaps a librarian. Release time is necessary to complete staff work.

The package has been used in a five-day workshop mode; however, additional time is required to conduct the search. The workshop requires the leadership of someone familiar with the approach. The package has been used by school districts with and without outside assistance.

Related Materials:

- Handbook of Comprehensive Planning in Schools (See A 2.5)
- Selecting a Curriculum Program: Balancing Requirements and Costs (See C 2.3)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost:

Curriculum and Instruction: Planning Improvement (One per participant is suggested)	$10.00/set
Curriculum and Instruction: A Guide for Alternatives (one per group is suggested)	$12.00/set

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title:	Evaluating a Curriculum Program: An Educator's Handbook
Descriptor:	A workshop to teach school personnel to evaluate curriculum programs.
Publication Date(s):	No date given
Originator:	Research for Better Schools, Inc. (RBS)
Intended Users:	School district administrators and teachers working as a team.
Purpose:	Goals: This product focuses on planning and carrying out evaluation of a curriculum program. Objectives: Its objectives are for a team to: o Plan and carry out evaluation. o Recommend modification, spread, or termination of the curriculum program.
Content:	Participants are instructed in the areas of planning an evaluation, developing and applying evaluation methods, and reporting results. Materials provide procedural guides, work aids, and examples adapted from actual school district practices. Materials have been used by school districts with and without outside assistance.
Usefulness Related to CBE:	This product can be used to help teachers learn to evaluate CBE instructional programs.
History of Development:	Information not available at this time.
Main Activities:	o Team describes program to be evaluated. o Team develops evaluation questions. o Team prepares data collection and analysis specifications. o Team prepares evaluation plan. o Team carries out evaluation plan. o Team reports findings and makes recommendations.
Provisions for Use:	Format: Team participants work as a group in on-the-job situations. Personnel: A project manager and three to six participants. Some consultant expertise may be needed. Product Components: Book I, Planning an Evaluation Effort, contains four sections: Describing the Program, Developing Evaluation Questions, Preparing Initial

Provisions for Use: (Cont.)

Specifications for Data Collection and Analysis, and Summmarizing and Reviewing the Planning Effort. Book II, Guidelines for Conducting an Evaluation, contains four sections: Planning Data Collection and Analysis, Collecting the Data, Processing the Data, and Interpreting the Data and Reporting the Results.
Time Span: About ten hours are needed for an individual to read materials, and about one school year for a team to carry out an evaluation project.

Conditions of Use:

Materials are intended for on-the-job applications. A team approach is recommended. A typical team may include a project manager (often a central office administrator, evaluator, curriculum coordinator, or principal), someone with evaluation experience, principals, and teachers. Release time is necessary to complete staff work.

This program has been used by individuals working independently, but could be used in a five-day workshop mode. The workshop would require leadership of a seasoned evaluator.

Related Materials:

- CSE Elementary School Test Evaluations (See B 4.7)
- CSE Secondary School Test Evaluations (See B 4.6)
- CSE-ECRC Preschool/Kindergarten Test Evaluations (See B 4.2)
- CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See B 4.5)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Costs: $9.00 per copy

One copy per participant is suggested.

Release time, data processing support, and consultant assistance are additional costs.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Write Test Items for Content Reference Tests

Descriptor: A learning package describing item writing procedures for test writers and evaluation specialists.

Publication Date(s): 1974 (Critique Edition)

Originator: Northwest Evaluation Association (NWEA)

Intended Users: Evaluation specialists and test writers and planners.

Purpose: Goals: Nine goals are stated for the learning package. The participant:

1. knows the steps in the item writing procedure.
2. knows two reasons why it is important to chart the scope and sequence of sets of objectives.
3. knows at least one way to classify objectives for scope and sequence charts.
4. knows that charting scope and sequence may not be necessary for very small sets of objectives.
5. knows the kind of people needed for domain specification teams.
6. knows the kind of selection procedure recommended for domain specification teams.
7. knows the kind and amount of training needed before domain specification begins.
8. knows how to develop item writing teams which produce a wide variety of test items designed appropriately for given measurable goals and objectives.
9. knows that the sample item pools need to be representative of the entire domain in some systematic way.

Objectives: Sample enabling objectives which follow these goals are:

1.1 Given a set of goals and objectives, the participant will be able to list the steps needed to prepare test items for the goals and objectives.

2.1 In a small group discussion setting the participant will be able to state two reasons why it is important to chart scope and sequence sets of objectives.

3.1 Given the set of objectives, "K-3 Mathematics MONEY and TIME," the participant will be able to chart them and find the three errors.

4.1 Given the task of selecting persons for a domain specificiation team, the learner can list the qualifications for team members.

Content: Objectives are listed individually with specific assignments, activities, and evaluation appropriate to the given objective.

Usefulness Related to CBE: This resource would be of value to any school district wishing to improve and upgrade standards for the construction of measurement instruments.

History of Development: The Northwest Evaluation Association became a formal organization in 1973. A series of five workshops and learning packages have been developed and are available to school districts in Washington and Oregon. Write Test Items for Content Reference Tests is one of these five learning packages.

To date, the packages have been distributed to 30 school districts in the two states. Field testing was conducted with twenty participants. Revisions were made based on the data collected. Specific field test data is not available.

Main Activities: The learning package may be used for individual study; however, some follow-up activity suggests small group work. Users are asked to read two sources. A list of potential resource persons is available from the organization's executive secretary. Exercises give users a chance to apply concepts taught with the objectives.

Provisions for Use: Format: This package could be used in a workshop or course. Personnel: The number of participants is not restricted. It does not appear that a trainer is essential in conducting sessions. The learning package is fairly self-explanatory as to reading assignments and follow-up activity. Product Components: Included in the learning package are materials needed for exercises and the two sources needed for reading assignments. Time Span: There is no indication of length of time needed. This would be determined by the individual circumstances.

Conditions of Use: The user should have some familiarity with the writing of course goals and behavioral objectives.

Related Materials: Other learning packages from NWEA workshops:

- Describe a Total Learning Management System (See D 2.1)
- Editing and Classifying Existing Test Items (See B 3.4)
- Field Testing Test Items (See B 3.6)
- Test Organization and Layout (See B 3.7)

Ordering Information: Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $6.00 (includes postage). Each participant needs a copy of the learning package.

Title: Editing and Classifying Existing Test Items

Descriptor: A learning package for test writers and evaluation specialists describing common flaws in and classification for test items.

Publication Date(s): 1974 (Critique Edition)

Originator: Northwest Evalution Association (NWEA)

Intended Users: Evaluation specialists and test writers and planners.

Purpose:

Goals: Two goals are stated for the learning package:

1. The participant can apply the basic criteria for identifying flaws in existing test items.
2. The participant can classify existing items to the Tri-County course goal collections.

Objectives: The enabling objectives which follow these goals are:

1.1 Given a series of items demonstrating common flaws in item writing, the participant will be able to identify these flaws.

1.2 Given a test item, the participant can state an objective and/or behavior statement appropriate to that item.

2.1 Given a test item and the corresponding objective or behavior statement, the participant can specify the appropriate course goal from the Tri-County course goal collections.

2.2 Given a test item and corresponding objective or behavior statement and course goal, the participant can correctly complete the classification form.

Content: Objectives are listed individually with specific assignments, activities, and evaluation appropriate to the given objective.

Usefulness Related to CBE: This resource would be of value to any school district wishing to improve and upgrade standards for the construction of measurement instruments.

History of Development: The Northwest Evaluation Association became a formal organization in 1973. A series of five workshops and learning packages have been developed and are available to school districts in Washington and Oregon. Editing and Classifying Existing Test Items is one of these five learning packages.

To date, the packages have been distributed to 30 school districts in the two states. Field testing was conducted with twenty participants. Revisions were made based on the data collected. Specific field test data is not available.

Main Activities: The learning package may be used for individual study; however, small group work is frequently suggested for follow-up to reading. Reading is the primary kind of activity, and exercises give users an opportunity to apply concepts taught with the objectives. A list of potential resource persons is available from the organization's executive secretary.

Provisions for Use: Format: This package could be used in a workshop or course. Personnel: The number of participants is not restricted. It does not appear that a trainer is essential in conducting sessions. The learning package is fairly self-explanatory as to reading assignments and follow-up activity. Product Components: Included in the learning package are worksheets, a copy of "Guidelines for Editing and Classifying Test Items," and item classification forms. Resources for reading assignments included in the learning package are: Item Writers Handbook; Multiple-Choice Items: A Close Look; K-12 Course Goals in Language Arts; and Writing Behavioral Objectives. Time Span: There is no indication of length of time needed. This would be determined by individual circumstances.

Conditions of Use: The user should have some familiarity with the writing of course goals and behavioral objectives.

Related Materials: Other learning packages from NWEA workshops:

- Describe a Total Learning Management System (See D 2.1)
- Write Test Items for Content Reference Tests (See B 3.3)
- Field Testing Test Items (See B 3.6)
- Test Organization and Layout (See B 3.7)

Ordering Information: Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $6.00 (includes postage). Each participant needs a copy of the learning package.

Title: Evaluation for Program Improvement

Descriptor: A training package in program evaluation.

Publication Date(s): 1975, 206 pp. (Participant's Handbook). Approx. 300 pp. (Coordinator's Handbook) + ann. biblios.

Originator: Richard W. Watkins, Earl Mortensen, and Diana P. Studebaker, Educational Management Program, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: School personnel and district community members concerned with instructional program management and evaluation.

Purpose: Goals: The authors describe the main goal of this product as follows: "To help instructional program managers develop the knowledge or skills necessary to identify, collect, organize, and analyze information useful in making decisions about program modification." The intent is not to train participants to be specialists in program evaluation, but rather to foster an understanding of what program evaluation is, and how it contributes to a school district.
Objectives: Not specifically stated in this package.

Content: The authors describe the following five topics:

- identifying decisions which are both necessary and feasible to be made about program modification, and specifying who makes these decisions;
- identifying alternative courses of action for decisions in the instructional management area; o determining what information is relevant to modification decisions;
- taking responsibility for or contributing to a plan for collecting, organizing, and analyzing program modification information; and
- using information about program effectiveness to modify instructional programs.

Usefulness Related to CBE: This package helps participants learn to evaluate instructional programs on the basis of achievement of measurable objectives. Thus it could be useful in orienting instructional personnel and others in a CBE context to the main issues of program evaluation.

History of Development: This training package is one of six independent but related units that make up the Far West Lab's Educational Management Program. Development of this product began in 1973 in response to a perceived need of school instructional staffs in the area of program evaluation. A prototype version was tested in fall 1973 in a university course and a revised prototype was tested with

History of Development: (Cont.)	teachers in spring 1974. Field testing was conducted during the summer and fall of 1974. Overall, 64 participants, including teachers, administrators, and counselors, used some or all of these materials in the four tests.
Main Activities:	Participants using these materials engage in five workshop sessions. Each session is structured around one of the five topics previously described. Much of the workshop is devoted to simulation activities which acquaint participants with the main issues of program evaluation. Interspersed among the simulations are readings, work sheets, and discussion and feedback sessions. Bibliographies and reading lists indicate sources of further information on selected topics for participants.
Provisions for Use:	Format: The product is designed to be used in a workshop conducted by a workshop coordinator. Personnel: This package is designed for between six and twenty-five participants, plus a workshop coordinator. The coordinator needs no special training, since the Coordinator's Handbook provides specific instructions for persons preparing to conduct the workshop. Product Components: Participant's Handbook, Coordinator's Handbook, transparencies, filmstrip, and cassette tape. Time Span: The material in this program can be handled flexibly, but ideally needs at least 15 hours, organized into five three-hour sessions. The Coordinator's Handbook describes alternatives for 13-1/2 hours, 12-1/2 hours, and a three-hour overview. Preparation by the coordinator will require approximately 10-15 hours prior to the workshop, about three hours for each session, and two to five hours after the workshop.
Conditions of Use:	Substantial time (at least a month) should precede the use of this material with a school staff in order that preparations for release time, substitutions, etc., may be made. Although the material may be covered in a concentrated fashion, for example, over a weekend, it would be preferable to space the workshop over a longer period of time.
Related Materials:	None
Ordering Information:	Copies of the product are available from: Far West Laboratory for Educational Research and Development 1855 Folsom Street San Francisco, California 94103

Ordering Information: (Cont.)	Costs are: *Coordinator's Handbook*, transparencies, filmstrip, and audiotape: $34.95 (reusable) *Participant's Handbook*: $7.95 per copy. A copy is needed by each participant.

Title:	Field Testing Test Items
Descriptor:	A learning package for evaluation specialists describing procedures for field testing.
Publication Date(s):	1974 (Critique Edition)
Originator:	Northwest Evaluation Association (NWEA)
Intended Users:	Evaluation specialists and planners.
Purpose:	Goals: The stated course goal for this learning package is: "The learners will be able to plan a field test program in their local situation." Objectives: The enabling objective for this course goal is: "Given a group of items, you will be able to list in sequence the necessary and sufficient activities for field testing them in your local situation."
Content:	The resource for a reading assignment is included in the package. In addition, a specific activity and evaluation appropriate to the stated objective is included.
Usefulness Related to CBE:	This resource would be of value to any school district wishing to improve and upgrade standards in testing development.
History of Development:	The Northwest Evaluation Association became a formal organization in 1973. A series of five workshops and learning packages have been developed and are available to school districts in Washington and Oregon. Field Testing Test Items is one of these five learning packages. To date, the packages have been distributed to 30 school districts in the two states. Field testing was conducted with 20 participants. Revisions were made based on the data collected. Specific field test data is not available.
Main Activities:	The learning package may be used for individual study; however, follow-up activity suggests small group work. There is one reading assignment. A resource person is available who in turn provides names of potential resource persons in the region. Through small group work, users apply concepts discussed in the reading.
Provisions for Use:	Format: For workshop or course. Personnel: The number of participants is not restricted. It does not appear that a trainer is essential in conducting sessions. The learning package is fairly self-explanatory as to reading assignments and follow-up activity.

Provisions for Use: (Cont.)

Product Components: Included in the package is the "Field Testing Checklist." Activity and evaluation require use of this aid.
Time Span: There is no indication of length of time needed. This would be determined by individual circumstances.

Conditions of Use:

The users of this package should have acquired some background in writing test items and test construction.

Related Materials:

Other learning packages from NWEA workshops:
- o Describe A Total Learning Management System (See D 2.1)
- o Write Test Items for Content Reference Tests (See B 3.3)
- o Editing and Classifying Existing Test Items (See B 3.4)
- o Test Organization and Layout (See B 3.7)

Ordering Information:

Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $6.00 (includes postage). Each participant needs a copy of the learning package.

Title: Test Organization and Layout

Descriptor: A learning package for evaluation specialists and test writers describing test formating and construction.

Publication Date(s): 1974 (Critique Edition)

Originator: Northwest Evaluation Association (NWEA)

Intended Users: Evaluation specialists and test writers and planners.

Purpose: Goals: A single course goal is stated as follows:

1. The participant can apply the guidelines for test formating and construction when pilot testing items and/or constructing district criterion-referenced tests.

Objectives: Enabling objectives for this goal are:

1.1 Given the paper "Points to Be Aware of When Constructing Tests," the participant will be able to develop a check list of critical points to consider when constructing tests.

1.2 Given the "Critical Points Check List," the participant will be able to review a commercially produced test (standardized and/or criterion-referenced) and identify its strengths and weaknesses on the Check List.

1.3 Given a set of items, the participant will be able to verbally state how they should be formated or will be able to construct a test according to the "Critical Points Check List."

Content: Objectives are listed individually with specific assignments, activities, and evaluation appropriate to the stated objective.

Usefulness Related to CBE: This resource would be of value to any school district wishing to improve and upgrade standards for the construction of measurement instruments.

History of Development: The Northwest Evaluation Association became a formal organization in 1973. A series of five workshops and learning packages have been developed and are available to school districts in Washington and Oregon. Test Organization and Layout is one of these five packages.

Main Activities: The learning package may be used for individual study; however, follow-up activity suggests small group work. Users are asked to read one source and apply the principles discussed in developing an instrument. A list of resource persons is provided.

Provisions for Use:

Format: For workshop or course.

Personnel: The number of participants is not restricted. While the learning package is self-explanatory as to assignments and follow-up activity, there is some mention made of a trainer who should supply commercial tests and test items with which groups will work. No special training is needed by this person.

Product Components: Included in the learning package is the source for required reading, as well as a bibliography related to test construction. Other materials are supplied by contacting resource persons.

Time Span: There is no indication of length of time needed. This would be determined by individual circumstances.

Conditions of Use:

Users should have some background in writing course goals and behavioral objectives. In addition, they should be familiar with procedures of writing test items.

Related Materials:

Other learning packages from NWEA workshops:

- o *Describe a Total Learning Management System* (See D 2.1)
- o *Editing and Classifying Existing Test Items* (See B 3.4)
- o *Field Testing Test Items* (See B 3.6)
- o *Write Test Items for Content Reference Tests* (See B 3.3)

Ordering Information:

Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $6.00 (includes postage). Each participant needs a copy of the learning package.

Title: Writing Tests Which Measure Objectives #29

Descriptor: A filmstrip-tape program for teachers describing the item form approach in devising measures which match objectives.

Publication Date(s): 1972

Originator: Eva L. Baker, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.

Objectives: The author states that, at the end of the program, the learner should be able to:

1. Generate a list and brief description of each dimension of an item form.
2. Inspect an item generated from a set of item form specifications, and indicate where, if any, deviations in the item occur.
3. Given an item form, generate an item which adheres to the specifications.

Content: The item form approach to test writing includes the following elements: response description, content limits, item format, criteria, directions, and sample item.

Usefulness Related to CBE: The filmstrip advocates measurable skills, which can be used to achieve identifiable competencies.

History of Development: All materials developed for VIMCET have been field tested and revised. However, this particular product carries no description of how or where this was done.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the examination which may be used as a pretest and/or a posttest.

Main Activities: (Cont.)

During the filmstrip showing, viewers need a copy of the answer sheet on which they are asked to "make discriminations along multiple dimensions."

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of curriculum.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

o an illustrated filmstrip, typically 30-40 frames
o accompanying audio-tape (reel-to-reel or cassette)
o instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should have developed a systematic approach to test item writing as related to predetermined behavioral objectives.

Related Materials:

Other VIMCET programs which treat this area of evaluation:

o Current Conceptions of Educational Evaluation #23 (See B 3.11)
o Alternative Avenues to Educational Accountability #22 (See B 3.9)
o Alternative Measurement Tactics for Educational Evaluation #26 (See B 3.10)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Alternative Avenues to Educational Accountability #22

Descriptor: A filmstrip-tape program for teachers which outlines the distinctions among personal, professional, and public accountability.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author states that specifically, at the conclusion of the program, the viewer will be able to:

1. Describe the three forms of educational accountability treated in the program, that is, personal, professional, and public accountability.
2. Properly classify fictitious descriptions of alleged systems of educational accountability as (a) not a true accountability system, or an instance of (b) personal, (c) professional, or (d) public accountability.
3. Describe one major strength and one major weakness of each of the three forms of educational accountability.
4. Supply at least one new illustration of each of the three forms of educational accountability described in the program.

Content: The filmstrip defines the three forms of educational accountability as follows:

1. personal -- a focus on self-improvement
2. professional -- a collegial improvement scheme
3. public -- an open statement of evidence.

Usefulness Related to CBE: According to the author's description, this program is designed "to expand the viewer's range of alternatives regarding the meaning of educational accountability." The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: The program was initially tested with small groups of two or three and later with a group of 10 UCLA secondary educational candidates. Results of the testing were as follows: Part I: pretest 30% and posttest 90%; Part II: pretest 40% and posttest 90%; and Part III: pretest 20% and posttest 60%.

Main Activities:

Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of evaluation.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

None

Related Materials:

Other VIMCET products which treat the area of evaluation:

- *Current Conceptions of Educational Evaluation #23* (See B 3.11)
- *Alternative Measurement Tactics for Educational Evaluation #26* (See B 3.10)
- *Writing Tests Which Measure Objectives #29* (See B 3.8)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Alternative Measurement Tactics for Educational Evaluation #26

Descriptor: A filmstrip-tape program for teachers which describes a four-category system for generating measurement schemes.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author provides two specific objectives for the program:

1. After viewing the program the learner will be able to distinguish between (a) events and/or procedures which can be legitimately employed educational criterion measures and (b) those which cannot be employed.
2. Upon completing the program the learner will be able to correctly classify exemplars of the four categories of measurement tactics treated in the program.

Content: The measurement tactics discussed are: questionnaire, examination, archival data, observation scale, and unobtrusive measure. Educational criterion measures encompass two major areas of consideration: (1) learner behavior and (2) learner product. Each of these are then considered from the standpoint of given conditions, i.e., whether manipulated or natural.

Usefulness Related to CBE: The author points out that educators have a wide variety of measurement tactics available. This program describes some of the less traditional measures and advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: This program was field tested in pre-service and in-service situations for four years. Data is provided from a Minnesota workshop held in 1969 with experienced teachers and administrators. The author describes these as "typical of general results:" Part I: pretest 71% and posttest 94%; and Part II: pretest 32% and posttest 86%.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

Main Activities: (Cont.)

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in instruction and evaluation.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of evaluation.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

None

Related Materials:

Other VIMCET products which treat the area of instruction:

- Alternative Avenues to Educational Accountability #22 (See B 3.9)
- Current Conceptions of Educational Evaluation #23 (See B 3.11)
- Writing Tests Which Measure Objectives #29 (See B 3.8)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Current Conceptions of Educational Evaluation #23

Descriptor: A filmstrip-tape program for teachers which identifies and analyzes four important conceptual distinctions in educational evaluation.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author states that the learner should be able to make correct distinctions between dichotomies related to educational evaluation activities. These are:

1. Evaluation versus Measurement
2. Formative Evaluation versus Summative Evaluation
3. Use of Process Criteria versus Use of Product Criteria
4. Evaluation as an Assessment of Merit versus Evaluation as an Aid to Decision Making.

Content: Written examples are provided in the filmstrip to accompany discussion of the four distinctions.

Usefulness Related to CBE: The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: The program was field tested with ten graduate students at UCLA. The data which appears in the instructor's manual shows the average pre- and posttest scores written respectively on each of the examination's four parts as follows: Part I: 70% and 90%; Part II: 60% and 100%; Part III: 60% and 90%; and Part IV: 80% and 100%.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in instruction and evaluation.

Regardless of the user group, each participant is required to take a four-part examination which may be

Main Activities: (Cont.)

used as a pretest and/or a posttest. Each section is based on one of the four measurable objectives for the program.

Provisions for Use:

Format: Would be used best to supplement a course or workshop focusing on the area of evaluation.

Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group would need to be responsible for setting up the filmstrip and administering the examination.

Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

Teachers involved in this program should have an understanding of their purpose in designing evaluation. In addition, they should be able to identify some of the common fallacies and weaknesses associated with measurement.

Related Materials:

Other VIMCET products which treat the area of evaluation:

- Alternative Avenues to Educational Accountability #22 (See B 3.9)
- Alternative Measurement Tactics for Educational Evaluation #26 (See B 3.10)
- Writing Tests Which Measure Objectives #29 (See B 3.8)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title:	Management by Objectives
Descriptor:	A multimedia kit designed to help administrators and board members implement an accountability system.
Publication Date(s):	1973
Originator:	Robert E. Boston, Ph.D., Superintendent of Schools, Indian Hill Exempted Village Schools, Indian Hill, Ohio, and David A. Spencer, Ph.D., Director of Secondary Education, Bloomfield Hills Public Schools, Bloomfield Hills, Michigan
Intended Users:	School superintendents, principals, and board members who want to install an accountability system in their schools.
Purpose:	The authors of Management by Objectives cite three reasons for the development of the product: o School operations have grown more complex. o There is a need for techniques that "permit proper evaluation of alternative courses of action." o Recent increased "involvement of students, teachers, parents and community in the decision-making process makes the need for techniques of choosing alternatives even more critical. Users will learn a systematic procedure whereby a school district can design and install a management by objectives system. Goals: Are not stated for this product. Objectives: Are not stated for this product.
Content:	The major topics treated in this kit are: 1. Management by Objectives: A Delivery System for School Accountability 2. Setting Educational Goals 3. Establishing Objectives: Steps to Goals 4. Assessment -- Program Development -- Evaluation 5. Appraisal Procedures
Usefulness Related to CBE:	Material explaining objectives can be used to acquaint school personnel with the concept of an objective. There is also material describing how to develop programs that meet objectives as well as to measure progress toward objectives.
History of Development:	No information is provided relative to field testing of this product.
Main Activities:	Users watch a sequence of five filmstrips with accompanying cassette tapes. Each filmstrip and tape covers one

Main Activities: (Cont.)	of the content areas outlined above. Users also refer to a "How-to Booklet" that reinforces concepts and describes procedures.
Provisions for Use:	Format: Management by Objectives is a self-instructional product. Personnel: Twenty persons may be accommodated with one set of materials. No special training is needed to participate and no special consultants are required. Product Components: The product consists of five filmstrips and five sides of cassette tape accompaniment. Twenty "How-To Booklets" are included. Time Span: No information is supplied on the length of time needed to work through the product.
Conditions of Use:	No special conditions for the use of this product are mentioned. However, users will require a cassette recorder for tape playback and a filmstrip projector.
Related Materials:	None
Ordering Information:	Copies of this kit may be ordered from: Paul S. Amidon & Associates, Inc. 5408 Chicago Avenue South Minneapolis, Minnesota 55417 (612) 690-2401 Cost: $110.00 (one set) Twenty participants may be accommodated by one set of the materials.

Title:	Educational Development, Dissemination, and Evaluation (DD&E) Training Resources
Descriptor:	A program for training professionals in educational development, dissemination, and evaluation.

*This product is cross-referenced in this sourcebook. See "Content: Series 5" of C 3.13 for a complete description.

Title:	ISCS Individualized Testing System
Descriptor:	Individualized evaluation materials for teachers wishing to design assessment appropriate to student needs.
Publication Date(s):	1973
Originator:	Intermediate Science Curriculum Study (ISCS), Center for Educational Design, Florida State University
Intended Users:	Teachers who are attempting a transition to individualized instruction.
Purpose:	Developers emphasize the need to "match the philosophy of education with that of instruction." They say that this level of importance increases in the case of individualized instruction. Goals: Materials will allow the teacher objective assessment of student achievement of skills, processes, and subject matter in the ISCS program. Objectives: There are no specific objectives stated for the product.
Content:	ISCS developed individualized evaluation materials as part of the Individualized Teacher Preparation program. The first two modules provide an overview of individualized evaluation. Suggestions are given for strategies to assess student progress based on individual student needs. To facilitate the implementation of the strategies a set of three booklets was developed for each level of the ISCS system.
Usefulness Related to CBE:	Measurable performance objectives provide the basis in this system for assessing student progress. Assessment procedures used relate to principles of criterion-referenced testing.
History of Development:	There is no information available as to where or how field testing was conducted. The project under which these materials were developed was funded by the National Science Foundation.
Main Activities:	The assessment procedure starts with identifying selected measurable objectives as a basis for study. The teacher then chooses from alternative sets of performance checks in order to assess the students' attainment of the objectives already stated. Finally, a test situation is set up, correct responses are provided, and remediation is given.
Provisions for Use:	Format: The first two modules are intended for small group teacher in-service settings. The other three

Provisions for Use: (Cont.)

booklets are self-instructional for the teacher to use in the classroom.
Personnel: No administrators or consultants are necessary.
Product Components: There are two introductory modules: Individualizing Objective Testing and Evaluating and Reporting Progress. Three booklets are used as follow-up: "Performance Objectives" (58 pp.), "Performance Checks" (116 pp.), and "Performance Assessment Resources" (70 pp.).
Time Span: No requirements or suggestions are made.

Conditions of Use:

This system is applicable only to those classroom teachers using the Intermediate Science Curriculum Study program. (See C4.)

Related Materials:

The booklets are divided into units relating to chapters of the textbook, Probing The Natural World, available from the source listed below.

Ordering Information:

Write: Silver Burdett Company
General Learning Corporation
Morristown, New Jersey 07747

Cost: Packages consist of coordinated components for each level. All components of each package are essential to the successful implementation of the system. Single components can be purchased only if proof of purchase of the Evaluating and Reporting Progress module and Individualized Objective Testing module is given at time of order.

Level 1 Package:	46 137 40	$ 25.20
Evaluating and Reporting Progress	46 10P 18	2.67
Individualizing Objective Testing	46 10P 19	2.67
Performance Objectives	46 137 41	3.36
Performance Checks (2 of each A,B,& C included in package 46 137 40)		
Form A 1 only	46 127 71	2.67
Form B 1 only	46 127 72	2.67
Form C 1 only	46 127 73	2.67
Performance Assessment Resource Part I	46 137 42	3.36
Performance Assessment Resource Part II	46 137 43	3.36

Level 2 Package:	46 138 40	$ 28.35
Evaluating and Reporting Progress	46 10P 18	2.67
Individualizing Objective Testing	46 10P 19	2.67
Performance Objectives	46 138 41	3.36
Performance Checks (2 of each A,B, & C included in package 46 138 40)		
Form A 1 only	46 128 71	2.67
Form B 1 only	46 128 72	2.67
Form C 1 only	46 138 73	2.67
Performance Assessment Resource Part I	46 138 42	3.36
Performance Assessment Resource Part II	46 138 43	3.36

Ordering Information: (Cont.)

Level 3 Package:	46 139 40	$47.25
Evaluating and Reporting Progress	46 10P 18	2.67
Individualizing Objective Testing	46 10P 19	2.67
Performance Objectives	46 139 41	3.36
Performance Checks A,B,C (2 of each form included in each package of 46 139 40 above)		
Environmental Science -- Well-Being		
Form A 1 only	46 129 71	2.10
Form B 1 only	46 129 75	2.10
Form C 1 only	46 129 79	2.10
Why You're You -- Investigation Variation		
Form A 1 only	46 129 72	2.10
Form B 1 only	46 129 76	2.10
Form C 1 only	46 129 80	2.10
In Orbit -- What's Up		
Form A 1 only	46 129 73	2.10
Form B 1 only	46 129 77	2.10
Form C 1 only	46 129 81	2.10
Winds and Weather -- Crusty Problems		
Form A 1 only	46 129 74	2.10
Form B 1 only	46 129 78	2.10
Form C 1 only	46 129 82	2.10
Performance Assessment Resource (1 each/package)		
Environmental Science -- Well-Being	46 139 42	3.36
Why You're You -- Investigation Variation	46 139 43	3.36
In Orbit -- What's Up	46 139 44	3.36
Winds and Weather -- Crusty Problems	46 139 45	3.36

Title: CSE Elementary School Hierarchical Objectives Charts

Descriptor: A set of charts outlining 145 goals and objectives of elementary education.

Publication Date(s): 1970

Originator: Center for the Study of Evaluation (CSE), UCLA Graduate School of Education

Intended Users: The kit is intended to be used primarily by elementary school principals as an aid in selecting, collecting, and interpreting information needed to make certain types of educational policy decisions. To a lesser extent, district-level curriculum experts and evaluation staff may find this useful.

Purpose: Developers state that the charts may have many purposes, but were designed to complement the CSE Elementary School Evaluation Kit: Needs Assessment. The charts depict one way of outlining the goals and objectives of elementary school education.

Goals: The hierarchical objectives charts will provide a framework for organizing the development of an objectives-based evaluation system. In addition, the charts will enable the potential user to begin development in areas where the offerings of standardized tests are poor or inappropriate.

Objectives: There are no specific objectives implied or stated in the use of this kit.

Content: The 145 goal areas depicted with an analysis of each goal in terms of its subgoals or objectives in a hierarchical fashion. The charts contain objectives ranging from broad goals to more specific objectives which lead to but do not include behavioral objectives. Behavioral objectives may be added easily by referring to the many published collections of objectives. The charts are organized around the following major goal areas: affective, arts-crafts-cognitive, foreign language, mathematics, music, physical education-health-safety, reading, religion, science, and social studies.

Usefulness Related to CBE: The charts provide a framework for organizing the development of an objectives-based evaluation system. In addition, they provide a means of linking broad goal areas to specific behavioral objectives, assuring that the objectives used in the classroom are focused on achieving the more broadly stated goals of the system.

History of Development: A survey of users was conducted by the developer to determine that the charts had value to purchasers and that the

History of Development: (Cont.)

goals were comprehensive. The following conclusions are based on the 167 individual responses:

1. The charts appear to be comprehensive. While 14 percent of all respondents suggested additional objectives, the majority of the suggested objectives were already included, usually in different terms.
2. Typically, the users indicated that they had used the charts in selection of important goals and objectives for an elementary school program and provision of in-service training to teachers.
3. The charts were rated as "irreplaceable" 5 percent of the time, "extremely valuable" or "valuable" 61 percent of the time, "of some value" 21 percent of the time, and of "very little value" or "of no value" 5 percent of the time. (Other responses totaled 8 percent.)
4. No differences were found in the way the charts were used in schools in different regions of the country. Too few returns were received from government, research, and foreign purchasers to investigate differences among users in different working environments.
5. Two suggestions for improving the charts were mentioned frequently. Forty-seven percent of the respondents felt that the charts should distinguish among knowledge, affective, and skill goals and objectives. Forty-five percent suggested that instructions should be provided on how to use the charts for a variety of purposes. To date, there is no indication that these changes will be incorporated.

Main Activities:

Based on a survey of users, the most common responses regarding the use of the charts were as follows: (1) To select important goals and objectives for an elementary school program, (2) to provide in-service training for teachers, (3) to organize objectives and goals into teaching units, (4) to assure that classroom activities were related to educational goals and objectives, (5) to develop or insure a comprehensive program for all elementary grades in the user's system, (6) to determine areas for testing or evaluation, (7) to write a course syllabus or other long-range plan, (8) to determine age or grade levels at which particular goals and objectives should be pursued, (9) to devise team teaching strategies, (10) to develop weekly lesson plans.

Provisions for Use:

Format: Most commonly, the charts are used by a committee or group of either teachers, or teachers and administrators. However, there was considerable variation in this pattern according to the way that the charts were used.

Personnel: A group leader or administrator is not required in using the charts.

Components: A set of 21 charts.

Provisions for Use: (Cont.) Time: The amount of time required for use of the charts varies from about 5 minutes for brief inspection of one goal area to a year if the charts are to be come an integral part of a school's planning procedures.

Conditions of Use: No special procedures are needeed to use the charts. However, the charts were compiled primarily for use in relation to the Elementary School Evaluation Kit: Needs Assessment, and thus the hierarchical listing of goals used here is compatible with that system.

Related Materials: CSE Elementary School Evaluation Kit: Needs Assessment (See A 2.1)

Ordering Information:

Dissemination Office
Center for the Study of Evaluation
145 Moore Hall
University of California
Los Angeles, California 90024

Cost: 1 set of 21 charts (17" X 22")	$12.50

1 set is required per planning team;
reusable unless planners write on charts.

Title:	Determining Test Length: Passing Scores and Test Lengths for Objectives-Based Tests
Descriptor:	A booklet for the educational evaluator wishing to employ objectives-based measures.
Publication Date(s):	1972, 33 pp. + biblio.
Originator:	Jason Millman, Cornell University
Intended Users:	Designed for educational evaluators attempting to construct an objectives-based test.
Purpose:	Goals: The booklet serves two primary functions in the construction of criterion-referenced tests. First, it helps in deciding the number of test items needed to assess each objective. Second, tables are provided to determine the number of test items needed and the number of students to be tested.
Content:	Discussion covers the topic of calculation of the Passing Score with regard to the following specific areas: (a) performance of others; (b) item content; (c) educational consequences; (d) psychological and financial costs; and (e) measurement error. The test length problem is discussed also in the context of Classical Test Theory, Binomial Model, and other sequential models. Tables are included which assist in problems of individual assessment and program evaluation.
Usefulness Related to CBE:	The booklet is a synthesis of the literature dealing with criterion-referenced measures which relate test performance to absolute standards.
Related Materials:	o An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator (See B 4.2) o Priorities Planning: Judging the Importance of Individual Objectives (See A 4.4) o Designing Teacher Evaluation Systems, W. J. Popham, Catalog No. PA104, Price $1.25 o Considerations in Selecting and Using Instructional Objectives (See A 4.3) o IOX Objectives-Based Test Collections (See B 1.2)
Ordering Information:	Write: Instructional Objectives Exchange P.O. Box 24095 Los Angeles, California 90024 Cost: $1.00 Catalog No. PA103

MEASURES -- REFERENCES B 4.2

Title:	An Evaluation Guidebook -- A Set of Practical Guidelines for the Educational Evaluator
Descriptor:	A guidebook for organizing objectives, designing measures, and conducting course evaluations.
Publication Date(s):	1972, 88 pp. + biblio.
Originator:	Dr. W. James Popham of UCLA is the originator of the Instructional Objectives Exchange (IOX). He is well known in the areas of instructional development and educational evaluation.
Intended Users:	The guidebook is designed for individuals who are responsible for conducting educational evaluations. Its brevity makes it useful for anyone seeking an overview of evaluation.
Purpose:	The author states that the need for this guidebook arose from the "rather significant technological advances" which recently occurred in the fields of curriculum, measurement, instruction, and evaluation. The purpose of the guidebook is to present briefly recent advances in evaluation.
Content:	The guidebook lists and explains 20 guidelines for planning and conducting educational evaluation. An introductory section lists the guidelines for sections entitled (1) Objectives, (2) Measurements, and (3) Data Collection and Analysis. The listing enables the reader to selectively consult topics of interest.
Usefulness Related to CBE:	The guidelines on specifying objectives should be particularly useful to schools engaged in the process of writing or revising objectives. The guidelines are based upon actual experience in writing, organizing, and revising many sets of objectives. The guidelines point out strategies for simplifying the specification of objectives, and point out pitfalls and frustrations that can be avoided if objectives which possess "content generality" are specified. Useful suggestions for the use of taxonomies when specifying objectives are given.
Related Materials:	o Priorities Planning: Judging the Importance of Individual Objectives (See A 4.4) o Considerations in Selecting and Using Instructional Objectives (See A 4.3) o IOX Objectives-Based Test Collections (See B 1.2)

Related Material: (Cont.)

- IOX Measurable Objectives Collections (See A 1.5)

Ordering Information:

Write: Instructional Objectives Exchange
P.O. Box 24095
Los Angeles, California 90024

Cost: $2.50

Title: Issues and Procedures in the Development of Criterion-Referenced Tests: ERIC/TM Report #26

Descriptor: A non-technical discussion of criterion-referenced tests (CRT's).

Publication Date(s): 1973, 18 pp.

Originator: Stephen P. Klein and Jacqueline Koseoff, ERIC Clearinghouse on Tests, Measurement, and Evaluation, Educational Testing Service

Intended Users: Primary audiences would include curriculum specialists, program evaluators, and other educators considering the use of criterion-referenced tests. Secondary audiences would include teachers, administrators, and graduate students.

Purpose: The purpose of the paper is to examine the construction of criterion-referenced tests and to discuss major issues and procedures associated with each step of test construction. Representative CRT's in mathematics and other areas also are reviewed in this paper.

Content: The first section of the paper covers the following topics:

- Purpose and defining characteristics of CRTs
- Objectives chosen
- Item construction and selection
- Improving item quality
- Content validity
- Item and test bias
- Test scores

In the second section, the following current efforts in criterion-referenced testing are described:

- California Test Bureau (CTB)
- McGraw-Hill Prescriptive Mathematics Inventory (PMI)
- Comprehensive Achievement Monitoring (CAM)
- Individualized Criterion-Referenced Testing(ICRT)
- Instructional Objectives Exchange (IOX)
- MINNEMAST Curriculum Project - University of Minnesota
- National Assessment of Educational Progress (NAEP)
- Southwest Regional Laboratory (SWRL)
- System for Objectives-Based Assessment Reading (SOBAR), Center for the Study of Evaluation, UCLA
- Zweig and Associates

Content: (Cont.)

For each project, brief descriptions of the following topics are given:
- o Focus
- o Instructional Dependency
- o Objective and Item Generation
- o Test Models and Packaging
- o Test Scores
- o Sources for Further Information

Usefulness Related to CBE:

This reference provides a handy discussion of issues and procedures useful to curriculum specialists and evaluators working in a CBE context. The discussions of CRT projects supply information that would help a person make an informed choice of testing alternatives that would be appropriate in a CBE setting.

Related Materials:

None

Ordering Information:

This paper is available (Order No. ED 083 284) from:

ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service
Princeton, New Jersey 08540

or

ERIC Document Reproduction Service (EDRS)
P.O. Box 190
Arlington, Virginia 22210

Costs per copy are $.76 (microfiche) and $1.95 (hardcopy). Add $.18 for postage.

Title: Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments

Descriptor: A detailed review of measurement instruments for teachers and administrators in adult education programs.

Publication Date(s): April 1976 (Third Printing), 110 pp. + biblio.

Originator: Dean N. Nafziger, R. Brent Thompson, Michael D. Hiscox, and Thomas R. Owen, Northwest Regional Educational Laboratory (NWREL)

Intended Users: Teachers and administrators in adult education programs.

Purpose: The national goal of the Right to Read program is to "eliminate functional illiteracy by 1980 among 90 percent of the population over 16 years of age." With this there has been a rapid expansion of programs designed to teach survival skills.

The developers state that the purpose of this reference is to "review and evaluate currently available measures of functional literacy." They state further that certain parameters and limitations must be noted when using this source. First, the list includes only tests designed for use with adults. Second, the tests may be used independent of other programs and materials. Third, a standard set of criteria was used in selecting tests which have unique characteristics, making it essential for readers to translate each based on its intended use. Finally, several tests still being developed were not included but may be available now.

The compilation of tests for this reference involved a literature search, and correspondence by mail, telephone, or personal interview with publishers and professionals in the field of adult education and teaching and measuring adult reading.

Content: The first part of the book covers problems in assessment of adult literacy, the method used in identifying tests, and criteria for selection. Test reviews follow and are divided into three categories: (1) criterion-referenced functional literacy tests; (2) standardized tests; and (3) informal tests.

A section on evaluation rates the tests on the same points included in descriptions in the review. The 41 criteria employed in evaluation of the tests are divided

Content:
(Cont.)

by purpose into four categories: (1) measurement validity; (2) examinee appropriateness; (3) technical excellence; and (4) administrative usability. The evaluation rating chart groups the tests under the same organization as in the review. In addition, a ranking is given for each criteria.

The test review format covers the following points in describing each test:
- publisher
- description
- availability of alternate forms
- administration time
- administration procedures
- materials used
- scoring procedure
- interpretation procedures
- validity
- reliability
- field tryouts
- ratings

A list of the tests reviewed in this reference is provided here:
- CRITERION-REFERENCED FUNCTIONAL LITERACY TESTS
  Adult Performance Level Functional Literacy Test (APL)
  Basic Reading Skills Mastery Test
  Reading/Everyday Activities in Life (R/EAL)
  Wisconsin Test of Adult Basic Education (WITABE)
- STANDARDIZED TESTS
  Adult Basic Learning Examination (ABLE), Level I
  Basic Occupational Literacy Test (BOLT), Fundamental Level
  General Educational Performance Index (GEPI)
  SRA Reading Index
  Tests of Adult Basic Education (TABE), Level E
- INFORMAL TESTS
  Adult Basic Reading Inventory
  Cyzyk Pre-Reading Inventory
  Harris Graded Word List and the Informal Textbook Test
  Idaho State Penitentiary Informal Reading Inventory
  An Informal Reading Inventory for Use by Teachers of Adult Basic Education
  Individual Reading Placement Inventory
  Initial Testing Locator Tests
  Reading Evaluation -- Adult Diagnosis (READ)

Usefulness
Related
to CBE:

A list of competencies which come under the definition of adult literacy is provided. Educators have found that these skills are difficult to measure. This

Usefulness Related to CBE: (Cont.) reference alleviates some of the problems in developing measurement for these special areas.

Related Materials: None

Ordering Information: Write: Office of Marketing and Dissemination
Northwest Regional Educational Laboratory
710 S.W. Second Avenue
Portland, Oregon 97204
(503) 248-6950

Cost: $4.50

Title: CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills

Descriptor: A reference book for educators which contains an evaluation of 2,610 scales measuring cognitive, affective, and interpersonal skills.

Publication Date(s): 1972

Originator: Center for the Study of Evaluation (CSE), Graduate School of Education, University of California, Los Angeles, and Research for Better Schools, Inc. (RBS)

Intended Users: Program and test developers and evaluators, test researchers, psychometricians, and test publishers.

Purpose: The purpose of this reference is to provide information on the quality and existence of tests in the areas of high-order cognitive, affective, and interpersonal skills.

Content: This publication is a single volume composed of evaluation ratings of some 2,610 scales and subscales considered to test skills in the higher-order cognitive, affective, and interpersonal areas. Each instrument is categorized into a cell of one of the three taxonomies and is given a numerical rating and a letter grade (Good, Fair, Poor) on each of the following characteristics: Validity, Examinee Appropriateness (appropriateness for the intended examinee group), Normed Excellence, Teaching Feedback, Usability, and Retest Potential. Comments are made on the instrument's ethical propriety. The CSE acronym for this system is VENTURE and the first portion of the book is devoted to a discussion of the components of each rating. For example, the system generally gives highest usability ratings to instruments which may be large-group administered in less than 20 minutes by a single observer without extensive practice.

The instruments are arranged by skill area and subskill, and are alphabetically listed within each subskill. Each skill area is introduced by a description of the taxonomy against which the instruments were matched. The cognitive taxonomy is a grid of skill (e.g., classifying) against content (e.g., verbal-semantic). The taxonomy of affective domain is three dimensional: affective characteristic against type of measure (e.g., self-report) against type of report (e.g., speculative). The interpersonal taxonomy is four-dimensional with type

Content: (Cont.)	of relation (e.g., with peers) mapped against location (e.g., at home), against type of measure, against type of report. The instruments are identified by name, form, age range, and the initials of the publisher (or author, in the case of unpublished tests). Indices of tests and publishers are included.
Usefulness Related to CBE:	The evaluations are expected to be of assistance in the development and assessment of innovative goals and programs as well as in identifying areas for which adequate instrumentation does not exist.
Related Materials:	This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, were designed to assist in improving quality of evaluation. The other publications are: o CSE Elementary School Test Evaluations (See B 4.7) o CSE Secondary School Test Evaluations (See B 4.6) o CSE-ECRC Preschool/Kindergarten Test Evaluations (See B 4.8) o Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See B 4.4)
Ordering Information:	Write: Dissemination Services Center for the Study of Evaluation UCLA Graduate School of Education Los Angeles, California 90024 Cost: $8.50

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title:	CSE Secondary School Test Evaluations
Descriptor:	A three-volume reference kit designed to aid school personnel to select tests related to school program goals.
Publication Date(s):	1974. A second edition is planned for publication in 1978 (subject to fundings). No copyright is claimed on the published material.
Originator:	Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), Graduate School of Education, University of California, Los Angeles
Intended Users:	Principals, evaluators, project directors, department chairpersons, and other state, regional, or local educators concerned with testing of students in grades 7-12. Secondary users include researchers, graduate students, test publishers, and libraries and resource centers.
Purpose:	This kit is a compendium of tests, keyed to educational goal areas, and evaluated for the characteristics of Measurement Validity, Examinee Appropriateness, Administrative Usability, and Normed Technical Excellence (the MEAN evaluation procedure). The goal of this kit is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in junior and senior high schools.
Content:	This publication contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing schools, programs, and students in grades 7-12. The introduction to the book defines and explains the MEAN evaluation method. Each of these four main categories is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct, and (2) Concurrent and Predictive. A poor, fair, or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test in Number Concepts, Systems, and Sets, for grades 7-8 is rated fair (F) in Measurement Validity, good (G) in Examinee Appropriateness, fair (F) in Administrative Usability, and fair (F) in Normed Technical Excellence.
Usefulness Related to CBE:	This kit is a useful screening device for selecting tests for review to determine whether existing measures adequately assess a given set of outcomes.

Related Materials: These books are part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, were designed to assist in improving quality of evaluation. The other publications are:

- o CSE-ECRC Preschool/Kindergarten Test Evaluations (See B 4.8)
- o CSE Elementary School Test Evaluations (See B 4.7)
- o CSE-RBS Test Evaluations: Tests of Higher Order Cognitive, Affective, and Interpersonal Skills (See B 4.5)

Individuals selecting tests for adult education programs will find the following to be helpful:

- o Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See B 4.4)

Ordering Information: Write:

Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: One set of three volumes $22.00

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title: CSE Elementary School Test Evaluations

Descriptor: A reference book for evaluation specialists, containing evaluation of standardized achievement tests in all elementary school subject areas.

Publication Date(s): 1975 (Second Edition)

Originator: Ralph Hoepfner, Project Director, Center for the Study of Evaluation (CSE), Graduate School of Education, University of California, Los Angeles

Intended Users: Principals, evaluators, project directors, and other state, regional, or local educators concerned with testing of students in grades 1-6. Secondary users include researchers, graduate students, test publishers, libraries, and resource centers.

Purpose: The purpose of this book is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in the elementary schools.

Content: This book contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing elementary schools, programs, and students. The introduction to the book defines and explains the MEAN evaluation method. Each of the four main categories in the MEAN evaluation procedure is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct, and (2) Concurrent and Predictive. A poor, fair, or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test in spelling for third grade is rated poor (P) in Measurement Validity, fair (F) in Examinee Appropriateness, good (G) in Administrative Usability, and poor (P) in Normed Technical Excellence.

Usefulness Related to CBE: This book is a useful screening device for selecting tests for review to determine whether existing measures adequately assess a given set of outcomes.

Related Materials: This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, Related Materials: (Cont.) were designed to assist in improving quality of evaluation. The other publications are:

- CSE-ECRC Preschool/Kindergarten Test Evaluations (See B 4.8)
- CSE Secondary School Test Evaluations (See B 4.6)
- CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills (See B 4.5)

Individuals selecting tests for adult education programs will find the following to be helpful:

- Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See B 4.4)

Ordering Information:

Write: Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: $5.00

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Directory of 100 Products Developed by Educational Laboratories and R&D Centers.

Title: CSE-ECRC Preschool/Kindergarten Test Evaluations

Descriptor: A reference book for school personnel containing evaluations of the most commonly used measures of school achievement.

Publication Date(s): 1971, 54 pp.

Originator: Center for the Study of Evaluation (CSE) and Early Childhood Research Center (ECRC), Graduate School of Education, University of California, Los Angeles

Intended Users: Principals, evaluators, project directors, and other state, regional, or local educators concerned with children of ages 30 months through six years. Secondary users include researchers, graduate students, test publishers, libraries and resource centers.

Purpose: This book is a compendium of tests, keyed to educational goal areas, and evaluated for the characteristics of Measurement Validity, Examinee Appropriateness, Administrative Usability, and Normed Technical Excellence (the MEAN evaluation procedure).
The purpose of this book is to provide a critical and objective evaluation of published tests in order to improve the way tests are selected for use in evaluating preschool and kindergarten programs.

Content: This book contains evaluations of virtually every output measure (test) that is published and generally available to educators and researchers for use in testing preschool and kindergarten programs and students. The introduction to the book defines and explains the MEAN evaluation method. Each of the four main categories in the MEAN evaluation procedure is broken down into subcategories. For example, Measurement Validity contains two subcategories: (1) Content and Construct, and (2) Concurrent and Predictive. A poor, fair, or good rating is assigned to each evaluated test in each of the four main categories, a rating that has been derived from summarizing the subcategories. For example, one test is rated fair (F) in Measurement Validity, poor (P) in Examinee Appropriateness, good (G) in Administrative Usability, and Poor (P) in Normed Technical Excellence.

Usefulness Related to CBE: Information might be used by evaluators designing or selecting assessment procedures.

326-B

Related Materials: This book is part of a series of test evaluation compendia produced through CSE's Evaluation Technologies Program. This reference tool, as well as the following, were designed to assist in improving quality of evaluation. The other publications are:

- CSE Elementary School Test Evaluations (See B 4.7)
- CSE Secondary School Test Evaluations (See B 4.6)
- CSE-RBS Test Evaluations: Tests of Higher-Order Cognitive, Affective, and Interpersonal Skills (See B 4.5)

Individuals selecting tests for adult education programs will find the following to be helpful:

- Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments (See B 4.4)

Ordering Information: Write: Dissemination Services
Center for the Study of Evaluation
UCLA Graduate School of Education
Los Angeles, California 90024

Cost: $5.00 per copy

This description was adapted from the Educational Dissemination and Linking Agent Sourcebook and Director of 100 Products Developed by Educational Laboratories and R&D Centers.

Title:	A Collection of Criterion-Referenced Tests: ERIC/TM Report #31
Descriptor:	An annotated bibilography of all criterion-referenced tests available to program evaluators.

*This product is cross-referenced in this sourcebook. See B 1.1 for a complete description.

Title:	Current Conceptions of Educational Evaluation #23
Descriptor:	A filmstrip-tape program for teachers which identifies and analyzes four important conceptual distinctions in educational evaluation.

*This product is cross-referenced in this sourcebook. See B 3.11 for a complete description.

Title: A Format for Monitoring the Teaching-Learning Process

Descriptor: A booklet for any educator wishing to develop a process for monitoring an instructional program through the use of performance objectives.

Publication Date(s): 1971, 12 pp.

Originator: Terry D. Cornell, EPIC Diversified Systems Corporation

Intended Users: Administrators, teachers, project directors, or anyone else responsible for supervising program implementation.

Purpose: The booklet proposes that the process will assist in achieving educational accountability.

Content: The book outlines the procedure for monitoring the showing of how organization, content, method, and facilities play a contingent role in attaining performance objectives. Procedures for implementation are included.

Usefulness Related to CBE: The heart of the subject matter in this book is, as the authors state, "to determine if what is planned as an instructional program is actually implemented."

Related Materials: None

Ordering Information: Write: Educational Innovators Press
P.O. Box 13052
Tucson, Arizona 85711
(602) 795-4210

Cost: $1.50

Title:	Educating Children for Adulthood: A Concept of Psychosocial Maturity
Descriptor:	A research report describing a model of psychosocial maturity based on measurable attitudes and dispositions.
Publication Date(s):	September 1973, 53 pp.
Originator:	Ellen Greenberger and Aage B. Sorenson, Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University
Intended Users:	Anyone in education who is concerned with the assessment of children's personal and social development.
Purpose:	The Schools and Maturity Program studies the impact of social experience on attitudinal development. Authors point out that a need was clearly recognized for construction of "a convincing model of non-academic objectives (as well as) a tool for assessing children's progress toward non-academic objectives."
Content:	A psychosocial maturity model based upon "requirements of society" and "healthy development of individuals" is presented. Maturity is considered from three viewpoints: (1) individual adequacy, (2) interpersonal adequacy, and (3) social adequacy.
Usefulness Related to CBE:	This information, based on research, should be helpful to school districts in the fledgling stages of developing non-traditional educational goals.
Related Materials:	There are 13 technical reports and four working papers published through the work of this program.
Ordering Information:	Write: Report No. 159 Center for Social Organization of Schools The John Hopkins University Baltimore, Maryland 21218 Cost: Information is not available.

Title: Measuring Psychosocial Maturity: A Status Report

Descriptor: A research report describing the development of a self-report instrument for assessing learners, ages 11-18.

Publication Date(s): December 1974, 59 pp. + appen.

Originator: Ellen Greenberger et al., Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University

Intended Users: Anyone in education who is concerned with the assessment of children's personal and social development.

Purpose: With a growing realization that the school experience does impact learners' attitudes, values, etc., there is a resulting concern for the lack of assessment devices for nonacademic development.

The report will provide a description of an attitude inventory model which integrates societal requirements with an individual's growth. The authors point out that another goal is "to test the theoretical relationships specified by our model of psychosocial maturity against empirical data concerning the relationships among subscales."

Content: The description covers the area of methods used for scale construction, validation, and examination of the structure of psychosocial maturity.

Usefulness Related to CBE: This information, based on research, should be helpful to school districts in the fledgling stages of developing non-traditional educational goals.

Related Materials: There are 13 technical reports and four working papers published through the work of this program.

Ordering Information: Write: Report No. 187
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, Maryland 21218

Cost: Information not available.

Title: Schools and Maturity Program: Final Report

Descriptor: A research report summarizing work units of the psychosocial maturity assessment program.

Publication Date(s): February 1976, 17 pp. + appen.

Originator: Ellen Greenberger, Schools and Maturity Program, Center for Social Organization of Schools, The Johns Hopkins University

Intended Users: Anyone in education who is concerned with the assessment of children's personal and social development.

Purpose: There are three objectives of the Schools and Maturity Program:

1. providing educators with a theoretical framework for understanding psychosocial development — and thus for selecting appropriate non-academic goals of the school experience;
2. delivering a reliable, validated instrument for the assessment of psychosocial maturity; and
3. obtaining knowledge of the effects of family, school, and peer group on youngsters' psychosocial development.

Content: Specifically, the two units of work described in the report are (1) Theory Construction and Test Development, and (2) Validation of Psychosocial Maturity Scales. A list of the technical reports and abstracts is provided in appendices.

Usefulness Related to CBE: As stated by the author, the program is "clearly a response to felt needs to conceptualize, assess, and investigate non-academic outcomes of children's lives in school.

Related Materials: There are 13 technical reports and four working papers published through the work of this program.

Ordering Information: Write:
Report No. 210
Center for Social Organization of Schools
The Johns Hopkins University
Baltimore, Maryland 21218

Cost: Information not available.

Promoting Instructional Outcomes

Instruction in any school program is a complex process that involves identifying and sequencing content and process, presenting content and skill-related information, providing sufficient and appropriate practice, providing performance feedback, and motivating students toward outcome attainment. A carefully designed CBE program, based on appropriate, desirable, and explicitly stated learning outcomes, and including reliable measures of students' outcome attainment, requires that the content, information, practice, and feedback procedures be revised until an acceptable level of pupil performance is demonstrated. Each of these elements of instruction is discussed briefly in the following paragraphs.

1. Identification of Content. Content should be appropriate and desirable. It is important that program content adequately represent its curriculum area as perceived and defined not only by the program designers and developers, but also by the public or educational community that views and evaluates program content. If the program outcomes have been carefully identified, instructional content will be both appropriately representative of the curriculum area and compatible with students' abilities.

2. Sequencing of Content. Content generally is sequenced most appropriately and effectively from the simplest task through a series to the most difficult task.

3. Presentation of Information. Content and skill information may be presented to students through any appropriate or demonstrably effective means or format. It may be transmitted, for example, by a teacher, by a person functioning as an "instructional aide" in a natural setting, by a text, or by an audiovisual presentation. Information may be presented in any effective form and through deduction, induction, inquiry, or other approaches.

4. Provisions for Practice. Instructional activities should provide appropriate and sufficient skills practice. Practice is sufficient if it provides enough opportunity for students to perform both in groups and individually and as they might be expected to perform the specific skill as stated in the outcome. Sufficient and appropriate practice of skills is essential to CBE programs. Where "life relevant" competencies are being promoted, opportunity for skill practice often may be provided in natural settings.

5. Providing Performance Feedback. Effective instruction includes the means and procedures for providing individual students with information regarding the adequacy of their response during practice.

6. Motivating Students Toward Goal Attainment. Arousing and maintaining student interest in attaining instructional outcomes is an educational concern. When the other instructional elements (content identification, content sequencing, information transmittal, practice opportunities, and performance feedback) function effectively, goal attainment motivation tends to be positive.

This section of the CBE Sourcebook describes material resources to assist individuals or groups in selecting and developing INSTRUCTION that will promote desired instructional outcomes:

C 1 Available Materials -- available sources that describe prepared, effective instructional programs.

C 2 Selection Procedures -- products which assist the user in selecting from available instructional materials and procedures.

C 3 Developmental Instructions -- products that instruct the user in designing effective instructional materials and procedures.

C 4 References -- references which provide information related to instructional product design.

Title: Educational Programs That Work

Descriptor: A collection of short descriptions of exemplary Title I projects.

Publication Date(s): 1976 (Second Edition), 289 pp. + appen.

Originator: Far West Laboratory for Educational Research and Development (FWL)

Intended Users: School personnel who wish to learn about educational programs that have been tested in various schools throughout the country.

Purpose/ Content: This collection contains four sections. The first section includes descriptions of exemplary programs that were initially funded with Title I, ESEA funds. The second section lists Project Information Packages (PIP's). Programs supported by USOE as demonstration projects during the 1975-76 school year are described in the third section. The final section presents descriptions of projects that could not be funded as demonstration projects due to limited resources.

Appendices list Title I Regional Program Specialists who can be contacted by local school district personnel for additional information about projects described in the collection.

For each project described, the following information is provided:
- o description
- o target audience
- o materials used
- o descriptors
- o financial requirements
- o program evaluation

When appropriate, the following information is provided also:
- o adoption criteria
- o adoption services
- o contact

Usefulness Related to CBE: This collection may be consulted by persons searching for innovative, validated, instructional programs that are appropriate in a CBE context. Many of the programs described in the collection are objectives-based. Few, however, are transportable, but programs may be visited if arrangements are made with the appropriate State Facilitator.

Usefulness Related to CBE: (Cont.)	This catalog provides descriptions of validated, innovative programs. Some of those included have implications for the successful implementation of competency based education. The usefulness of a program will vary from one district to another. With the background information and names of contact persons provided appropriate inquiries can be made.
History of Development:	This collection was originally prepared for the U.S. Office of Education, Division of Education for the Disadvantaged. The programs described in this catalog have all undergone evaluation as well as review by the Joint Dissemination Review Panel within the Education Division of the U.S. Department of Health, Education, and Welfare.
Related Materials:	o Catalog of NIE Education Products (See C 1.3)
Ordering Information:	Individual copies of this collection may be ordered from: Far West Laboratory for Educational Research and Development 1855 Folsom Street San Francisco, California 94103 Cost per copy is $4.95 (prepaid)

Title: Curriculum Development in Elementary Mathematics: Nine Programs

Descriptor: Provides in-depth information about nine elementary mathematics programs.

Publication Date(s): 1974, 246 pp.

Originator: Kathleen Devaney and Lorraine Thorn, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Teachers, curriculum coordinators, and principals with the intent to provide information to help them make sounder program choices.

Purpose/ Content: The collection contains descriptions of nine elementary mathematics programs that resulted from the research and development movement in public education. All nine programs were influenced by the "new math," which, the authors state, "revealed that its designers generally over-estimated both children's and teachers' capacities to understand abstract math concepts." They go on to say that the programs described here attempt in various ways "to correct the apparent failings of the new math: by returning to more conventional arithmetic, by rethinking the manner and sequence in which the newer and more powerful concepts were presented to children, or by couching arithmetic learning in terms that would seem more natural and relevant to children."

Each program is described in a fashion that encourages comparison with the other programs in the collection.

The organization of each report is as follows:

- Introduction
- Basic Information
- Goals and Rationale
- Content
- Classroom Action
- Implementation
- Program Development and Evaluation

The nine programs that are described are:

- The Madison Project
- The Arithmetic Project for Teachers
- Nuffield Mathematics Project and Mathematics for Schools
- Individually Prescribed Instruction -- Mathematics (IPI - Math)
- Individualized Mathematics System (IMS)

Purpose/ Content: (Cont.)	o Patterns in Arithmetic (PIA) o Minnesota Mathematics and Science Teaching Project (Minnemast) o Unified Science and Mathematics for Elementary Schools (USMES) o Developing Mathematical Processes (DMP)
Usefulness Related to CBE:	The authors state that "The reports of IPI, IMS, DMP, and PIA included here presage and complement the competency-based approach to teacher education." Information about those four programs presented in this collection would be helpful to a person faced with the task of selecting mathematics curricula appropriate to a CBE context.
History of Development:	No material describing the history of the development of this collection is provided.
Related Materials:	None
Ordering Information:	Copies are available from: Far West Laboratory for Educational Research and Development ATTENTION: G. Larrosa 1855 Folsom Street San Francisco, California 94103 Cost: $7.95 per copy (prepaid)

Title: Catalog of NIE Education Products

Descriptor: A two-volume description of 660 products funded in whole or in part by the National Institute of Education.

Publication Date(s): 1975

Originator: National Institute of Education (NIE), U.S. Department of Health, Education, and Welfare, Washington, D.C. 20208

Intended Users: The forward to the catalog states that it was designed to serve several audiences:

- educators at all levels
- members of Congress
- parents
- publishers

Purpose/Content: Developers of the catalog list two primary purposes:

1. To inform educational practitioners, developers, policy makers, and publishers about a wide range of school-oriented products developed with federal R&D funds.
2. To provide information to help potential consumers make decisions concerning the most appropriate education products for their needs.

Products in the following 16 content areas are described:

- Aesthetic Education
- Basic Skills: Mathematics and Science
- Basic Skills: Reading and Language Arts
- Basic Skills: Reasoning and Problem Solving
- Early Childhood Education
- Education and Work
- Educational Equity: Handicapped
- Educational Equity: Multicultural/Bilingual Education
- Educational Equity: Sex Fairness
- Evaluation, Measurement, and Needs Assessment
- Finance, Productivity, and Management
- Guidance and Counseling
- Information Utilization and Dissemination
- Post-Secondary Education
- Social Education/Social Science
- Teacher Education

Each product in the collection is summarized briefly, after which, information is presented about the following aspects of the product:

- Subject Area(s)
- Intended Users and Beneficiaries
- Goal(s) or Purpose(s)
- Patterns of Use

Purpose/ Content: (Cont.)

- o Assessment Provisions
- o Time Requirements
- o Implementation Procedures
- o Assurances and Claims
- o Materials and Equipment
- o Developer/Author
- o Availability

Usefulness Related to CBE:

Since the catalog provides comprehensive descriptions of educational products, which include indications of product effectiveness, the user should be able to make informed discriminations among available products. The chief values of the catalog lie in its comprehensiveness and in the amount of information presented about each product. Especially useful are the indications of product effectiveness.

History of Development:

At the request of NIE in early 1975, past and present contractors and grantees developed descriptions of products that would be ready for implementation by November 1975. Guidelines for the product descriptions specified that developers include verifiable, supportable assertions and assurances about products.

In cases where assertions and assurances could not be verified, developers were asked to describe negative attributes and to make suggestions about how users could guard against potential hazards. Due to limitations of time and number of staff, NIE did not verify product descriptions, and therefore, authors of the catalog state that "NIE cannot certify the accuracy, completeness, or objectivity of the developers' statements."

Should this first edition of the catalog prove useful, future editions are planned that will include additional products as well as up-to-date information on products described in this edition. No information is presented on how the effectiveness of the catalog will be assessed.

Related Materials:

- o ALERT, A Sourcebook of Elementary Curricula, Programs, and Projects (See C 1.4)

Ordering Information:

Copies of this reference catalog are available from:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Cost: Not specified

Title:	ALERT, a Sourcebook of Elementary Curricula, Programs, and Projects
Descriptor:	A guide to selected curricula, training programs, model projects, and resources in elementary education. Part of the ALERT Information System.
Publication Date(s):	1972 (experimental versions of the sourcebook were used during 1970-1972), 493 pp.
Originator:	Samuel N. Henrie, Senior Editor, Far West Laboratory for Educational Research and Development (FWL)
Intended Users:	The ALERT sourcebook was designed for persons interested in improving educational programs for K-6 learners. Primary users are teachers, students, parents, curriculum specialists, administrators, school board members, and community representatives. A secondary use of the product is in pre-service and in-service teacher education.
Purpose/ Content:	The purpose of the ALERT sourcebook is to present information about a comprehensive range of carefully tested programs in elementary education developed through 1972. This information is designed to help users become aware of new programs, and to help them make choices about which new programs would be appropriate in their own situations. About 300 programs are described. There are fifteen chapters in the ALERT sourcebook, covering both new and traditional areas of elementary education, including multisubject areas. Within each chapter, developers have sought to include a comprehensive range of alternatives, generally beginning with a section describing new curricula. A second section describes model projects, and training programs (mostly for teachers, but in some cases for administrators, tutors, or parents) are described in a third section. Resources designed to allow the reader to extend his/her search are presented in the fourth section.
Usefulness Related to CBE:	Users of the ALERT sourcebook can gain information to help determine whether a given innovative, validated project is appropriate in a CBE context. Additionally, the resource sections of each chapter can be used to access other programs. Because the sourcebook is a nearly complete list of validated programs produced through 1972, users need only to search programs developed since then to be entirely up-to-date.
History of Development:	Development of the ALERT sourcebook began in 1969. A development team surveyed journals, conference reports, listings of conference reports, ERIC, and ERIC Clearinghouse

History of Development: (Cont.)

reports, and made contacts with recognized experts in order to locate innovative projects.

After developing a systematic educational development and information file, a selection procedure and several criteria were established in order to delimit a manageable number of high quality items. The sourcebook was limited to programs for prekindergarten through sixth-grade children (though some programs extend to higher grade levels). The sourcebook was also limited, the developers state, "to selected new curricula, models for organization and instruction, personnel training programs, and resource lists and indexes."

The following criteria for selection were adopted:

First Priority: Programs produced by research and development agencies (agencies which employ a rigorous R&D cycle).
Second Priority: New non-R&D programs that have demonstrated their value through field trials.
Third Priority: Other new programs that have not been rigorously evaluated, but show internal evidence of good quality and represent important alternatives to traditional practice.

Project staff, assisted by expert consultants, chose selections for inclusion in the sourcebook by applying the above criteria. All first priorities were included; when these did not provide adequate coverage of an area, second and third priorities were added.

A "Technical Report on the Selection of Entries for the ALERT Information Product, The Sourcebook of Elementary Curricula, Progams and Projects" details the selection process, and is available upon request from the Far West Laboratory.

An experimental version of this product has been field tested in approximately 100 schools in five states between 1970-1972. Developers state that field testing "has focused on refinements in the access system -- how does the user locate the kinds of programs he needs? -- and in the format in which the reviews are presented." Developers request from users additional data on the usefulness of the present version of the sourcebook.

Related Materials: None

Ordering Information: Write:
Docent Corporation
25 Broadway
Pleasantville, New York 10570

Ordering Information: (Cont.)	Cost: $9.95 per copy A directory listing sites where ALERT curriculum materials are being used is available at the same address for $2.45.

Title: Modelog: A Catalog of Comprehensive Educational Planning Component Models

Descriptor: A catalog of planning models to assist school districts in identifying appropriate and effective programs based on local goals and needs.

Publication Date(s): 1975, 265 pp.

Originator: Systems Design and Development Staff, New Jersey Department of Education, under an ESEA Title III grant administered through the Public Schools of Newton, New Jersey

Intended Users: Educational planners concerned with implementing "efficient and thorough" education in school districts.

Purpose/ Content: The developers describe this reference as "intended to be a kind of Sears, Roebuck catalog for educational planning. It was developed as the result of a current rethinking about educational planning. The thrust appears to be one of allowing more local control in developing models. However, districts cannot be responsible for all requirements involved in planning models. It is suggested that their attention should be given to establishing priorities and providing adequate resources. Sources such as Modelog will supply the technical assistance to facilitate the whole process.

The component models described in the catalog were selected after a nation-wide search was carried out. The content is categorized into six components:

1. goal setting procedures
2. writing objectives and using existing banks of objectives
3. assessment procedures
4. guidelines for program selection
5. evaluating program effectiveness
6. evaluating program efficiency

Each of the models described in this reference supplies the following information:

- source
- cost
- copyright
- overview
- procedures
- implementation needs
- special features

When appropriate, a sample entry or objective is offered from the material being described.

Usefulness Related to CBE:	This reference should assist school district planners in their response to the legislative directive calling for "thorough and efficient" education. It should serve also to clarify the question of how to involve the community in educational decision making.	
Related Materials:	None	
Ordering Information:	Write:	New Jersey Department of Education Systems Design and Development 225 West State Street Trenton, New Jersey 08625 (609) 292-7983
	Cost:	Not available

Title:	Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71)
Descriptor:	A series of descriptive and analytic reports about educational materials.
Originator:	Educational Products Information Exchange (EPIE) Institute The EPIE Institute is a non-profit agency providing services to help educational consumers make informed decisions concerning the purchase of educational products. The Institute was provisionally chartered in 1967 by the Regents of the University of the State of New York. In 1975 EPIE received a permanent charter.
Intended Users:	Teachers, principals, curriculum specialists, superintendents, and others who have an interest in information about educational products.
Purpose/ Content:	Six EPIE reports are described in the present review. These six reports, all analyzing selected elementary and secondary instructional systems in a particular curriculum area, are: o Evaluations of Art Programs for Non-Artist Teachers (EPIE Report #52) o Analyses of Basic and Supplementary Reading Materials (EPIE Report #64) o Materials for Individualizing Mathematics Instruction (EPIE Report #65) o Early Learning Kits -- 25 Evaluations (EPIE Report #68) o Analyses of Elementary School Mathematics Materials (EPIE Report #69/70) o Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)
Usefulness Related to CBE:	The EPIE reports analyze and provide empirical information about current educational products. In addition, these reports often describe commercially available products, while many similar reports describe only laboratory products. The CBE practitioner can thus use the EPIE reports as a source of information about available commercial educational products.
History of Development:	Since 1967, the EPIE Institute has published a continuing series of reports describing educational products. These reports are part of the membership services of the EPIE Institute. A National Advisory Board composed of 30 educational and technical organizations offers EPIE assistance and advice.

History of Development: (Cont.)	EPIE staff also are assisted by more than 100 consultants from a range of organizations throughout the U.S.
Related Materials:	o Selecting and Evaluating Beginning Reading Materials -- A How-To Handbook (EPIE Report #62/63) (See C 2.4)
Ordering Information:	EPIE Reports are available from: EPIE Institute 463 West Street New York, New York 10014 Costs to non-members are $20.00 per copy with discounts available for quantity purchases. EPIE members receive a 50% discount.

The following section (C 1.6.1 - C 1.6.6) includes descriptions of the individual sets of Educational Product Reports (#52, 64, 65, 68, 69/70, 71).

Title: Analyses of Basic and Supplementary Reading Materials (EPIE Report #64)

Descriptor: Analyses of 76 commonly used reading materials.

Publication Date(s): 1974, 109 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users/Purpose/Content: Intended users of this report are school personnel who desire in-depth information about available reading materials.

The purpose of this report is to provide descriptive information about a substantial number of reading materials. This information is aimed at helping the user to focus in-depth information on particular products.

The report is organized into six parts. The first part explains how these analyses came into being. The second part explains a system of Instructional Design Analysis that focuses on Objectives, Sequence, Methodology, and Evaluation. This system is used in the report to analyze products. The third part analyzes basic reading systems for a general audience. In the fourth part, basic reading systems for primary, intermediate, and junior high grades are presented. Supplementary reading programs are analyzed in the fifth part. The report concludes with a list of approximate prices of the programs.

Usefulness Related to CBE: See C 1.6 for usefulness statement.

History of Development: A group of 59 materials analysts were trained in the use of materials analysis. Having been trained, they met on May 18-23, 1974, and formed teams of three -- each consisting of a reading specialist, a classroom teacher, and a curriculum or media generalist -- to review the products described in the report.

The introduction to this report describes anticipated supplementary reports on the "actual use and performance" of the analyzed products. Field testing to serve as the source of data is to be done "with the cooperation of principals and teachers drawn from a representative national sampling of school buildings."

Related Materials: See C 1.6 for Related Materials.

Ordering Information:	See C 1.6 for address of distributor and cost information.

Title: Analyses of Elementary School Mathematics Materials (EPIE Report #69/70)

Descriptor: Comparative systematic analyses of 18 elementary mathematics programs.

Publication Date(s): 1975, 128 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users/ Purpose/ Content: The intended users of these analyses are school personnel and others interested in information about frequently used mathematics programs in order to make decisions about mathematics programs for local use.

The purpose of the report is to provide comparative analyses of 18 elementary mathematics programs according to a systematic approach to instructional design. This approach involves studying a product along four constructs: Intents, Contents, Methodology, and Means of Evaluation.

The first part of the report contains information about procedures used in analyzing mathematics programs. The bulk of the reports consists of analyses of 18 programs, featuring descriptive information and product background information, "Additional Considerations," and an overall assessment of the product, as well as discussions of the four constructs mentioned above.

Usefulness Related to CBE: See C 1.6 for usefulness statement.

History of Development: No information is presented that explains how products were chosen for inclusion in this report.

Product analysts came from all over America. They were administrators, teacher educators, and staff members of state departments of education, with half of them having primary responsibilities in mathematics. After the 30 analysts received training in EPIE's system of instructional design analysis, they reviewed the products described in the report. Special care was taken to insure that each product was reviewed by at least one mathematics specialist.

Related Materials: See C 1.6 for Related Materials.

Ordering Information: See C 1.6 for address of distributor and cost information.

Title: Early Learning Kits -- 25 Evaluations (EPIE Report #68)

Descriptor: Analyses of the instructional design of materials for preschool children.

Publication Date(s): 1975, 88 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users/ Purpose/ Content: Intended users of this report are teachers, parents, administrators, and community leaders who are interested in information to help them make choices about materials for early childhood education.

The purpose of this report is to analyze 25 selected early learning kits according to a systematic outline of the main elements of instructional design. These main elements of instructional design are listed as: (1) a set of goals and objectives; (2) a body of content; (3) sequence of activities; (4) methods and activities; and (5) assessment. The analyses are supplemented by comments and opinions from persons who have actually used the materials with children.

A kit is defined in the report "as an instructional system that encompasses at least two or three elements of instructional design but does not necessarily include materials for children to handle or use on their own." Twenty-five kits are analyzed under eight headings:

- physical description
- target audience
- content and objectives
- methods of use
- conditions of use
- rationale
- research and development
- summary

Under each heading, three types of information are generally presented: the producer's description of that aspect of the product, an analysis of that aspect of the product by EPIE analysts, and user feedback. Under some headings there is no user feedback, and in some cases, there is no "producer's description."

Usefulness Related to CBE: See C 1.6 for usefulness statement.

History of Development:	Developers of this report surveyed catalog entries, journal advertisements, and other promotional leads in order to identify an initial pool of early learning kits for further scrutiny. On the basis of further descriptive information, producers of 51 early learning kits were asked to supply review copies of materials. Of the materials that were sent for review (80% of the producers from whom requests were made sent materials), 25 were selected for inclusion in this report. In addition to analyzing the products, developers contacted users by interview or questionnaire.
Related Materials:	See C 1.6 for Related Materials.
Ordering Information:	See C 1.6 for address of distributor and cost information.

Title: Evaluations of Art Programs for Non-Artist Teachers (EPIE Report #52)

Descriptor: An evaluative report describing three art programs, two visual education programs, and resources for teachers of art classes.

Publication Date(s): 1973, 39 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

The evaluations in this report were carried out by Joachim Thermal, an artist, art therapist, art educator, and art teacher. His works hang in several American museums, and he has published numerous articles on art therapy and art education.

Intended Users/ Purpose/ Content: This report is written for art teachers and others who are responsible for decisions concerning elementary art curricula.

The purpose of the report is to provide comparative, evaluative information about a number of art programs and resources for art classes. The material in the report is systematically described in terms of four constructs of instructional design -- objectives, organizations, methodology, and design. However, the report also contains the investigator's subjective judgments about the programs he is describing.

Each art program is described in two parts: a "Basic Description" and a "Commentary." Visual materials from the programs serve as examples of points the investigator is making.

The art programs described are:

- Art: Meaning, Method and Media (Six Levels I-IV), Guy Hubbard and Mary J. Rouse, Benefic Press, 1972
- Guidelines for Learning Through Art, (Eight Series, Grades: 1-8), Clyde M. McGeary and William M. Dallam (Editors), Barton-Cotton, Inc., 1970
- Teaching Through Art (Series A), Robert J. Saunders, American Book Co., 1971

In addition to the art programs, information about a new curriculum area, Visual Education, is presented along with brief descriptions of two visual education programs:

- Learning to See, Kurt Rowland, Van Nostrand-Reinhold, 1968
- Looking and Seeing, Kurt Rowland, Van Nostrand-Reinhold, 1965

Usefulness Related to CBE: See C 1.6 for usefulness statement.

History of Development: This report is the result of one person's efforts. He has brought his own experience and background as an artist and art teacher into play in the evaluation of the materials in the report. No data are presented substantiating the conclusions he reaches.

Related Materials: See C 1.6 for Related Materials.

Ordering Information: See C 1.6 for address of distributor and cost information.

Title:	Materials for Individualizing Mathematics Instruction (EPIE Report #65)
Descriptor:	Analyses of 26 individualized instructional systems in mathematics.
Publication Date(s):	1974, 63 pp.
Originator:	Educational Products Information Exchange (EPIE) Institute
Intended Users/ Purpose/ Content:	Intended users of this report are educational personnel interested in information about instructional programs in mathematics featuring individualized instruction. The purpose of the report is to analyze a wide range of available instructional systems in mathematics that stress individualized instruction. The report specifically focuses on how the design of mathematics materials is used to facilitate individualized instruction. Twenty-six materials are described in this report. Each material is analyzed in terms of four constructs which EPIE uses to describe the instructional design of any product. The four constructs are: Basic Description, Organization of Content, Methodology, and Evaluation. In addition to information within each construct, EPIE analysts provide supplementary notes and comments about each product.
Usefulness Related to CBE:	See C 1.6 for usefulness statement.
History of Development:	Products included in this survey were chosen so as to include as wide a range as possible of producers, areas of math, age/grade levels, etc., of available materials. Descriptions of products supplied by producers served as the source of information from which selections for inclusion were made. The survey was limited to materials specifically designed for individualized instruction as well as made available in their entirety by the publisher. Products were analyzed under direction of the EPIE Materials Evaluation Office by analysts who had received training in the EPIE analysis system. The report claims that "each product was analyzed independently by at least two analysts." Analysts considered each product in detail as well as any empirical evidence of its effectiveness.

Related Materials:	See C 1.6 for Related Materials.
Ordering Information:	See C 1.6 for address of distributor and cost information.

Title: Secondary School Social Studies: Analyses of 31 Textbook Programs (EPIE Report #71)

Descriptor: Contains systematic, comparative analyses of social studies programs.

Publication Date(s): 1975, 96 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users/ Purpose/ Content: Intended users of this report are educators and others who desire information to help them make decisions about the appropriateness of social studies programs in their own local setting.

The purpose of the report is to present analyses of 31 textbook programs for secondary school social studies. Each analysis is focused on four specific elements of instructional design of a product:

o intent of the product
o organization of the contents of the product
o methodology for the use of the product
o means of evaluation of learning provided by the product

The report contains an introductory section and discussions of each selected product according to the elements of instructional design described above. In addition, the analysis of each product contains descriptive and background material, commentary, and quotes from EPIE analysts. In contrast to other similar EPIE reports, this report features a discussion, within the content section of each product review, of how the product developer dealt with the question of values.

Usefulness Related to CBE: See C 1.6 for usefulness statement.

History of Development: No information is included on how products were selected for inclusion in this survey.

Thirty analysts were identified with the help of the Social Sciences Education Consortium (SSEC); these persons were trained by EPIE Institute staff in EPIE's system of instructional design analysis. Working in teams of two, the analysts reviewed the products presented in this report. Results were consolidated by EPIE staff members into this report.

Related Materials: See C 1.6 for Related Materials.

Ordering Information: See C 1.6 for address of distributor and cost information.

Title: Secondary Social Studies Information Unit -- A Review and Analysis of Curriculum Alternatives

Descriptor: A collection of descriptions of 36 secondary social studies programs.

Publication Date(s): 1973, 575 pp.

Originator: Sandra G. Crosby (Ed.), Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Teachers and curriculum coordinators wishing to locate and select among alternative secondary social studies programs.

Purpose/ Content: The purpose of the collection is to provide descriptive analyses of 36 exemplary secondary social studies programs. The analyses are intended to provide information that will allow users to select a program appropriate to their needs.

The collection contains an Introduction, a Selection Guide, and individual descriptions of programs. The Introduction provides the developmental background of the collection, while the Selection Guide lists programs alphabetically under appropriate subject areas.

Each program description contains the following kinds of information:
- Introduction
- Basic Information (short one or two sentence statements of the name, format, uniqueness, content, suggested use, target audience, aids for teachers, availability, developer, and publisher of the program)
- Goals and Objectives
- Content and Materials
- Classroom Action
- Implementation Requirements and Costs
- Program Development and Application
- References

Usefulness Related to CBE: The information provided in the description of each program shows that many of the programs make use of behavioral objectives. Thus this collection would be valuable to the teacher or curriculum developer in a CBE program looking for validated, available social studies programs based on objectives.

History of Development: Developers of this collection state the following criteria for program selection:

1. The central purpose of the development project was to

History of Development: (Cont.)

prepare materials for public school students.

2. The materials were developed for courses in social studies.
3. The program was designed for students in grades 7-12.
4. The design and writing activity was undertaken according to a research and development model: new knowledge or concepts about knowledge were incorporated into new teaching materials, tried out in both laboratory and actual classroom settings, and then revised on the basis of findings from the field. This process differs significantly from the conventional mode for writing commercially published materials.
5. All materials for the course, including guides for teachers, were published and available for purchase by September 1973.
6. The course comprises a semester or more of study or, if supplementary, no less than two weeks.

Developers add that this collection "includes some programs that do not meet all these criteria but which represent important alternatives to traditional practice and show internal evidence of good quality. It omits a few programs which meet these criteria, because materials were not made available for review. It does not include programs which are entirely devoted to games and simulations because a review of these has been published by the Social Science Education Consortium of Boulder, Colorado (Learning with Games by Charles and Staesklert, SSEC, Boulder, 1973, $4.95)."

Related Materials: None

Ordering Information: Copies of this report are available (Order #ED 081 669) from:

ERIC Document Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.65 (microfiche), $19.74 (hardcopy)

Title: Social Studies Curriculum Materials: Data Book

Descriptor: A collection of social studies curriculum resources available for use by elementary and secondary teachers.

Publication Date(s): 1971 (Supplemented Continually), two volumes

Originator: Social Science Education Consortium, Inc.

Intended Users: Elementary and secondary teachers.

Purpose/ Content: The developers state that "its primary objective is to encourage and support creative, cooperative work among social scientists and educators in the development and use of elementary and secondary social studies materials in which the content and methods of the social sciences receive the major emphasis."

Each of the curriculum materials is analyzed in the following format:

1. an overview of major points
2. format, elements, and cost of materials
3. time required for implementation
4. intended users
5. rationale and general objectives
6. content
7. teaching and gaming procedures
8. evaluative data, comments, and suggestions for use

Five major divisions of curriculum materials are presented: (a) project materials, (b) textbooks, (c) games and simulations, (d) supplementary materials, and (e) teacher resource materials. Entries in the project section are alphabetized by institution; in the textbook section by title; in the games and simulations section by name of game.

Usefulness Related to CBE: This collection of innovative, validated, curriculum materials is useful in identifying those which are applicable to CBE programs. This can be determined quickly by referring to the section of the analyses called "teaching procedures."

History of Development: With the vast increase in curriculum materials available for use, a critical need was seen for an analysis of these materials. The precursor of the current book was a 1967 publication entitled Curriculum Materials Analysis System (CMAS). The data book project was funded by the National Science Foundation. The intent, as the authors state, was to provide "a concise compilation of information based on the CMAS."

The following factors were considered in selection of materials for this collection:

History of Development: (Cont.)

- the availability through commercial outlets
- accessibility to Consortium staff of completed materials
- expertise of Consortium staff relative to use of materials
- advice and assistance of the Consortium membership

There is no indication that field testing or revisions were conducted. However, supplements are published twice yearly and reflect changes in present data sheets as well as new data sheets.

Related Materials:

There are other publications similar in purpose and format to this data book:

- *Educational Product Report*, monthly publication of EPIE, in which occasional reports are devoted to social studies
- *A Directory of Research and Curriculum Development Projects in Social Studies Education*, Marin Social Studies Project
- *Directory of Social Studies Curriculum Projects*
- *Social Studies Education Projects: An ASCD Index*, Bob L. Thomas and Thomas L. Groom

Ordering Information:

Write: Publications Orders
Social Science Education Consortium, Inc.
855 Broadway
Boulder, Colorado 80302

Request Publication Number 139 in order to assure expeditious processing

Cost: Two volumes, including all supplements to date: $40.00

Annual subscription (two supplements - standing order): $15.00. Specify month and year subscription is to begin.

Title:	SWRL Instructional Product Selection Kit (IPSK)
Descriptor:	The kit enables users to apply an updated set of criteria when selecting instructional resources.
Publication Date(s):	1975
Originator:	Southwest Regional Laboratory for Educational Research and Development (SWRL)
Intended Users:	Anyone concerned with selecting instructional products for use in schools, including textbook adoption committees, administrators, school boards, and pre-service and in-service teachers.
Purpose:	Goals: None stated. Objectives: IPSK prepares users to perform the following tasks: o to identify in instructional programs and materials the presence or absence of criteria presented on the Product Selection Checklist; o to compare competing instructional products according to these selection criteria, and; o to use the selection criteria for product selection decisions in a variety of contexts.
Content:	IPSK emphasizes the following selection considerations: o outcomes or instructional objectives of the product; o assessment materials and procedures used for determining outcome attainment; o reports of previous product use in a variety of school situations; o instructional and supplementary materials and procedures used to provide instruction and practice on the program outcomes; o installation requirements of the product, including the training of staff and monitoring the ongoing progress of pupils using the product; and, o time and cost considerations.
Usefulness Related to CBE:	This kit prepares the user to discriminate competency-based instructional programs from programs which are not competency based and to distinguish other elements of products that indicate their overall quality.
History of Development:	As with other programs designed by R&D Laboratories, this product has been extensively tested and revised to insure learner attainment of the progrm outcomes.
Main Activities:	Main activities occurring throughout the workshop are: o Participants examine three brochures that describe

Main Activities: (Cont.)

fictitious elementary school science programs. These brochures were patterned after publisher promotional materials currently on the educational market.

- The three simulated programs are rank ordered by participants as if selecting and purchasing these programs for their own school situations. Participants include brief rationale statements to accompany their rankings.
- A filmstrip, "Guidelines for Selecting Instructional Products," is shown in order to identify and describe criteria for the selection of instructional products.
- The booklet, "Considerations in Selecting Instructional Products," is distributed. The booklet discusses the rationale supporting the selection considerations and contains a checklist which summarizes the criteria in question form.
- Participants then work through a set of Exercise Items to give them practice in applying the specific selection criteria.
- The three simulated science program brochures are re-examined by participants to determine whether they meet each of the selection criteria presented in the workshop.
- A discussion of the rating is conducted and the overall results are used as a basis on which participants reevaluate their initial program selection.
- Extension activities also may be used for a more extensive examination and discussion of the product selection criteria.

Provisions for Use:

Format: Workshop or in-service sessions. The kit may be used in a self-study mode, also.

Personnel: An instructor is required for workshop or in-service use.

Product Components: The kit includes all necessary materials for an instructor and 12 participants. Additional materials may be ordered to accommodate additional workshop participants.

Time Span: A workshop can be scheduled as a single session or a series of two or three hour sessions. Estimated total time is three to six hours, depending on the background of participants.

Conditions of Use:

No specialized background or training is required to conduct or participate in the workshop. The workshop coordinator, however, should prepare for the workshop by studying the Instructor Guide and becoming acquainted with all IPSK materials and procedures before conducting the session. IPSK procedures can be modified to meet the needs of each particular audience; the Workshop Coordinator should determine the level of sophistication of the audience and plan on modifying workshop activities accordingly.

Related Materials:

- *Selecting a Curriculum Program: Balancing Requirements and Costs* (See C 2.3)
- *Designing Instructional Programs* (See C 3.1)

Ordering Information:

The kit is available from:

SWRL for Educational Research and Development
Division of Resource Services
4665 Lampson Avenue
Los Alamitos, California 97020

IPSK cost is $30.00 and includes all materials for an instructor and 12 participants. Extra copies of participant materials can be ordered in sets of 12 and cost $15.00 and $7.50 for the non-consumable and consumable participant materials.

Title:	The Educational Information Consultant (EIC)
Descriptor:	A team-learning program which explores methods of communicating research and development information to the educational practitioner.
Publication Date(s):	No date given
Originator:	Wayne Rosenoff, Project Director, Far West Laboratory for Educational Research and Development (FWL)
Intended Users:	This is a training program for linking agents, information center staff, librarians, and educational research and development staff. It would also be useful for graduate students in schools of education and library science.
Purpose:	The overall purpose of the program is to show learners how to develop the skills, knowledge, and attitudes required to function in an Education Information Consultant role. Goals: The developers state that virtually all students completing the training package achieve "basic skills" levels of competence and the majority achieve "proficiency" or "high proficiency" in EIC competencies. Objectives: There are five major processes which the learner should be able to perform at the completion of training: 1. Negotiation: Identification, definition, and analysis of the problem and attendant information needs of a client. 2. Retrieval: Development of a search strategy to locate, identify, and secure R&D information pertinent to the client's problem and request. 3. Transformation: Screening, analysis, synthesis, and organizaion of results of the search into a format appropriate for delivery to the client. 4. Communication: Display and communication of the results to the client in a style appropriate for his/her use in finding a solution to the problem. 5. Evaluation: Assessing the pertinence of the major EIC processes, overall role, and operational effectiveness within the linkage system; reformulation based on evaluation and adjustments made in EIC processes and functions.
Content:	The major topics covered in this program are communication, negotiating the educational problem, retrieval of information, transformation, and evaluation of outcomes. Each one of the major topics is the focus of one unit, or module, of training. In addition, there is an

Content: (Cont.)

introduction module describing the emerging role and functional contexts of the EIC, and a simulation model providing an orientation to the skills involved in each process. The modules are introduced in a fixed sequence.

Usefulness Related to CBE:

The training of linking agents is emerging in response to the need for information dissemination services in education. The role of the EIC can be seen as critical in a district needing to resolve specific curricular, instructional, and administrative problems relative to CBE.

In addition, the skills taught in this program will provide the learner with tools which also can be directly applied to their own research, retrieval, and utilization needs.

History of Development:

The program was field tested using all three "learning forms" (four courses, four institutes, and eight learning teams). These were conducted in 16 sites in nine states.

The accomplishment of almost every training objective was demonstrated by completion of a document or documents. The skills-oriented dimensions of the training prescribe that the learning exercises be actual operations which result in tangible trainee-produced products and information packages. In summary, 97 percent of the course and institute participants (N=144) completed the training and achieved basic skill level (2.0 on a 4-point scale) competence. Moreover, 74 percent of the course participants and 65 percent of the institute participants completed information packages that were rated at level 3.0 or 4.0, indicative of "Proficient" or "High Proficiency" levels of performance. Of the learning team participants who completed the training and submitted information packages (N=17), 89 percent completed packages that were rated at basic skill level, while 71 percent completed packages that were rated at the higher levels of proficiency. The raters were members of the staff of the developer agency trained for this particular task.

Careful attention was given to each stage of development of this training package. An advisory committee was formed to establish the model of the EIC role and to define the functional elements to be included in it. A three-phase pilot testing occurred in the first development year, followed by extensive revision. Subsequently, the operational field testing established the effectiveness and transportability of the three learning forms.

The final report of the project in which this training was developed and validated is available.

Main Activities:	Knowledge, skills, and affective behaviors in each process are demonstrated in a sequential, modular configuration. The approach is to provide the trainee with a meaningful orientation to the whole EIC role, and with an opportunity to master tasks during training in the order that they are performed on the job. Instructional activities in each module have three phases: (1) preparation, (2) learning, and (3) application. Student centered learning exercises feature group and individual activities including role playing, problem solving, simulation, and decision-making exercises.
Provisions for Use:	Format: To accommodate a variety of audiences and environments, training was developed in three forms: course, institute, and learning team, which differ primarily in scheduling, formats, and procedures. Personnel: An instructional manager, familiar with EIC materials and their use, is needed for all formats. Product Components: The EIC Training Manual is a workbook containing readings, exercises, sample forms, and other job aids developed for use by trainees. It is a consumable item, normally to be purchased by each participant. The EIC Guide to Instructional Management is a loose-leaf notebook containing schedules, training plan, instructional goals, background readings, detailed directions for handling each learning element, and evaluation guidelines material for the instructional manager. This guide is needed only for the course or institute forms. Time Span: The training is organized in a series of instructional modules. The course form is designed to fit the 15-session pattern of a college semester schedule. The actual instruction time totals approximately 45 hours. The institute form requires 10 six-hour days to complete and is suitable for summer school courses or on-the-job training. The learning team form is designed to be self-administered by a group of at least three trainees and monitored through correspondence with an instructional manager. The schedule for this form calls for 10 team sessions (a team consists of three to six members) and approximately 30 hours of individual activities. Average time to complete this form is approximately 10 weeks.
Conditions of Use:	Operational field testing indicates that both the course and the institute form work well and that the materials are sufficient to enable instructional managers with varying backgrounds and experience to effectively administer the training and achieve the student outcome standards. A generally low completion rate for the learning team form indicates that this form is not as successful, and probably should be undertaken only where there are strong incentives and a highly competent and accessible instructional manager. A learning team form combines the concept of group dynamics with the already proven

Conditions of Use: (Cont.)	concept of independent study to create a unique, self-directed, small-team learning model. The basis for the learning-team form consists of self-instructional elements similar in content to those in the other two forms, but the directions are written to make the materials self-instructional. The unit is self-contained, but the instructional manager may augment its content with additional readings or other materials.
Related Materials:	o Educational Development, Dissemination, and Evaluation (DD&E) Training Resources (See C 3.13)
Ordering Information:	Write: University Extension University of California Berkeley, California 94720
	Cost: $65.00 for an independent study credit course. If a learning team form is used, add $15.00 per team for A-V materials. Printed materials alone (Training Manual) cost $16.50.

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Selecting a Curriculum Program: Balancing Requirements and Costs

Descriptor: A self-instructional training unit providing a six-step model of the process of selecting an improvement program to meet local needs.

Publication Date(s): No date given

Originator: Glen Heathers, Project Director, Research for Better Schools, Inc. (RBS)

Intended Users: Anyone in a leadership role in local educational improvement programs should find this program to be useful. The program also can be of value for graduate students in administration or supervision.

Purpose: The product is organized as a model for the process of selecting an improvement program that involves identifying needs for improvement, surveying resources that could meet these needs, analyzing local factors related to adopting different changes, and choosing the changes to be introduced.

Goals: Teams working together through this program should carry out the complete selection process. The selected alternative is to be compatible with the school district's requirements and budget.

Objectives: No specific program objectives are stated. The product consists of a volume organized in terms of eight objectives.

Content: The product contributes to knowledge and skills required in offering leadership in planning and conducting any local eductional improvement program. The product presents a six-step model of the process of choosing an improvement program. The steps are: identifying the area where improvement is needed, specifying aims in the area, assessing shortcomings in accomplishing these aims, determining likely causes of the shortcomings, identifying resources that could remedy the shortcomings, surveying local factors favoring or opposing adoption of any desired resources, and selecting the improvement program to be adopted.

Case materials and associated exercises with answer keys are included to give the student practice in applying the conceptual materials offered. The product also includes preassessment and postassessment exercises, with answer keys.

Usefulness Related to CBE

Selecting an Educational Improvement Program (Unit 8) is a training product providing a conceptual model for use in the process of helping school system personnel choose an improvement program that will meet their needs.

History of Development:

There is no information available relative to the product's development or effectiveness with users.

Main Activities:

- o If curriculum alternatives are not already provided to teams, identification and search activities are initiated, paralleling in procedure but not intensity the activities suggested in Curriculum and Instruction: Planning Improvement (See B 3.1).
- o Team sets selection criteria.
- o Team gathers cost and requirements information.
- o Team compares alternatives and selects a program.

Provisions for Use:

Format: Team participants work as a group in on-the-job situations. The program can be used in a three-day workshop mode, but would require leadership of someone familiar with the approach.
Personnel: The product can be studied on a self-instructional basis or with assistance from an instructor. An instructor's guide is provided for use with this product and other units of the training program. The student can use this product separately or in combination with other selected units of the training program.
Product Components: The basic training unit, Selecting a Curriculum Program: Balancing Requirements and Costs, contains four sections: 1) Identifying Screening Criteria and Suitable Programs, 2) Establishing Selection Criteria, 3) Analyzing Alternative Programs, and 4) Comparing Alternatives and Selecting a Program. A project manager's appendix is also included.
Time Span: About six hours is needed for an individual to read materials, and from two to three months for a team to carry out a selection process.

Conditions of Use:

Materials are intended for on-the-job applications. A team approach is strongly recommended but not required. A typical team may include a project manager (often a central office administrator or curriculum coordinator), one or two principals, and one or two teachers. Release time is necessary to complete staff work.

It is recommended that the student use Unit 1, Training Program Introduction and General Study Plan Guide, in deciding to study this and other program units. It is usable in planning study for any of Units 2-8 of the training program. Also, the instructor can decide for the student that this product should be studied. It is further recommended that the student first use Unit 3 of the training

Conditions of Use: (Cont.) program, Task Improvement Programs, since that unit covers the full process of planning and conducting improvement programs.

Related Materials:
- Curriculum and Instruction: Planning Improvement (See B 3.1)

Ordering Information:

Write: Research for Better Schools, Inc.
1700 Market Street
Philadelphia, Pennsylvania 19103

Cost: $6.00 for a single volume for each participant. Component parts are also available.

o Unit 1 -- Training Program Introduction and General Study Plan Guide	$3.00
o Instructor's Guide	$2.00
o Unit 8 -- Selecting an Educational Improvement Program	$5.00

This description was adapted from Catalog of NIE Education Products and Educational Dissemination and Linking Agent Sourcebook.

Title: Selecting and Evaluating Beginning Reading Materials -- A How-To Handbook (EPIE Report #62/63)

Descriptor: A report describing a process for analyzing and selecting reading materials.

Publication Date(s): 1974, 105 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: Primarily for educators engaged in the task of analysis and selection of reading materials.

Purpose: This report was developed to help educators:

- make informed choices among available alternative reading programs
- match characteristics of reading programs to local needs
- learn to utilize systematic processes of instructional design analysis

Goals: No goals are stated within the report.
Objectives: No objectives are stated within the report.

Content: The report contains five sections. In the first section a historical survey of important developments in ways of improving reading instruction is presented. The second section presents the instructional design elements used by EPIE in evaluating educational products. Section three presents an extensive checklist to be used in clarifying one's own approach to reading instruction. Information about the role of materials in reading instruction and in learning to read is presented in section four. The final section charts the various tasks that need to be carried out in order, as the developers state, "to set materials selection in the wider context of school policy-making, community characteristics and needs, curriculum development staff training, and other related activities."

Usefulness Related to CBE: The processes for instructional materials selection could be helpful in assisting persons to make rational decisions about products that would be appropriate in a CBE context.

History of Development: Based on the work of Dr. Maurice Eash of the University of Illinois, Chicago Circle, EPIE has developed an approach to the analysis of instructional design that undergirds much of this report as well as many of EPIE's reports on instructional programs.

No data about the development of this approach are presented, nor are data presented that substantiate the effectiveness of the processes in the report under discussion.

Main Activities:	A section, "How To Use This Report," describes a set of suggested steps that call for reading each section of the report, followed by applying the new information to one's own instructional setting.
Provisions for Use:	Format: A self-instructional booklet for individual use. Personnel: No information is presented about personnel needed to compile instructional analysis tasks. Product Components: The materials consist of written textual materials supplemented by checklists, all of which are contained in the report. Time Span: No information is presented about the length of time needed to engage in tasks.
Conditions of Use:	No constraints on the use of this product are foreseen. The highly general and informal suggestions about its use suggest that it would be highly flexible and adaptable.
Related Materials:	o Educational Products Information Exchange (EPIE) Educational Product Reports (#52, 64, 65, 68, 69/70, 71) (See C 1.6)
Ordering Information:	Copies of this report are available from: EPIE Institute 463 West Street New York, New York 10014 Costs to non-members of EPIE are $20.00 per copy, with discounts available for quantity purchases. EPIE members receive a 50% discount.

Title:	Project Management Executive Orientation
Descriptor:	A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

*This product is cross-referenced in this sourcebook. See A 2.3 for a complete description.

Title:	Elementary Science Information Unit
Descriptor:	A multimedia review of six science curricula to aid school personnel in deciding which of the programs suit their own situations.
Publication Date(s):	1970
Originator:	C.L. Hutchins, Project Director, Far West Laboratory for Educational Research and Development (FWL)
Intended Users:	Administrators and teachers in elementary schools, preservice trainees, science consultants, and instructors in curriculum methods.
Purpose:	Goals: This information unit will assist school decision makers in gaining information about, and selecting among some of the major Federally funded elementary science curriculums and to provide a multimedia model to help train educators in the process of curriculum decision making. Objectives: There are no specific objectives stated for this project.
Content:	This product reviews and compares six science curriculums in such a way as to aid school personnel in deciding which of the programs best suit their own situations. Conceptually Oriented Program in Elementary Science (COPES), Elementary Teaching Project (MINNEMAST), Science Curriculum Improvement Study (SCIS), and Science Process Approach (SPA) are all described in parallel fashion. An introductory booklet outlines procedures to be followed when a group is being conducted step-by-step through the review process. A review booklet gives readers a brief introduction to all six programs. After being compared and contrasted via an introductory filmstrip-audio tape, each program is reviewed in a color filmstrip-audiotape presentation as well as a 30 to 40 page detailed booklet description.
Usefulness Related to CBE:	Once a district's needs have been identified, curriculum decision makers should be ready to make their choices from options in terms of predetermined local criteria. This product should be of great assistance in this task.
History of Development:	During development and field testing and in the several years that the product has been distributed and used nationally, no difficulties have been revealed. The content of the material is now somewhat out of date, since development work ended in 1970 and the only supplement was released in 1971. However, the product as a

History of Development: (Cont.) decision-making model has been validated thoroughly, as reported in An Educational Development Case Study. A more current description of each of the six programs is provided in A Sourcebook of Elementary Curriculum Programs and Projects. (See C 1.4)

Main Activities: The group views an introductory filmstrip with cassette tape, then surveys the various curricula in depth through filmstrips and detailed program reports.

Provisions for Use: Format: The information unit is planned for use by groups responsible for science curriculum decisions at the school district level.

Personnel: In pre-service training programs, an instructor would make student assignments; but in a school district, leadership in the use of the unit might be assigned by the district office.

Product Components: Seven filmstrips and eight booklets (plus supplement); a filmstrip projector and reel-to-reel audiotape recorder are required.

Time Span: Reviewing, reading, and discussion could be accomplished in one day, however, use over a period of several weeks is recommended.

Conditions of Use: There are no constraints or previous experience required in using this product.

Related Materials: None

Ordering Information:

Write: Universal Research Systems, Inc.
363 South Taafee Street
Sunnyvale, California 94068

Cost:	Boxed multimedia: Elementary Science Information Unit	$75.00
	Additional copies of eight booklets	1.00

This description was adapted from Catalog of NIE Education Products.

Title:	Research Utilizing Problem Solving (RUPS)
Descriptor:	An instructional program to give teachers and administrators skills and techniques in retrieving and utilizing knowledge used in resolving problems.
Publication Date(s):	1973 (Revised Edition)
Originator:	Charles Jung, Improving Teaching Competencies Program, Northwest Regional Educational Laboratory (NWREL)
Intended Users:	The focus of training materials is toward teachers and administrators.
Purpose:	Goals: There are two for this program. One is to try out the steps of the RUPS process as a way of working toward improvements in the school setting. The second is to try out some ways of increasing teamwork skills. Objectives: There are none stated specifically for this project.
Content:	The RUPS instructional system has two versions, one for teachers and one for administrators. The program gives teachers and administrators knowledge, skills, and techniques in retrieving and utilizing knowledge while in the process of identifying and diagnosing classroom or school problems and designing action plans to resolve them. Evaluation becomes a pattern of repeated objective diagnosis in this process. To do this, participants develop skills for using a five-step scientific method: (1) identify the problem, (2) diagnose the problem situation, (3) consider alternative actions, (4) try out an action plan, and (5) adopt the plan. Each instructional sequence provides: purpose, objective, leader preparation, list of participant materials, and procedures. School personnel who complete the training program learn to use techniques for defining, analyzing, and solving problems.
Usefulness Related to CBE:	Competency-based programs are emerging at a rapid pace in education. This as well as other trends result in experimentation and research to produce a vast amount of resources for improving the quality of education. New kinds of curriculum and instructional approaches are being developed. It is becoming increasingly feasible to provide teaching strategies that make use of a multitude of resources and guarantee learner outcomes. However, the teacher will need to develop skills in information utilization as found in this program.

History of Development:

This system was designed with the intention that nonexperts would be able to conduct workshops. During the interim testing, the developers observed nonexperts successfully conducting workshops at Atascadero, California, and at Issaquah and Ellensburg, Washington. No developers were involved in five of the field-test workshops. The wide use of this system throughout the United States and in several other countries during the past three years supports a claim of easy replicability.

Field tests of this instructional system were conducted between 1969 and 1972, with 220 volunteer trainees from six field sites -- one in Montana, one in California, two in Texas, one in Washington, and a national educational research group meeting in Chicago, Illinois. Data collected from these trainees provide the following results:

1. Seventy-six percent of the trainees perceived the training to be satisfying and worthwhile. Most of the negative responses came from two sites — one where many problems were reported and participants were strongly directed to attend the workshop, and another where participants had recently experienced positive effects of a "sensitivity training" workshop. At the latter, many objected to the comparatively high degree of structure in the RUPS design. These results, plus evaluations from earlier trials and evaluations shared with the developers from other settings, indicate a high degree of satisfaction among RUPS participants if they have appropriate expectations and have chosen to experience this workshop.

2. Statistically significant cognitive gains were obtained based on an analysis of the mean scores from 137 participants who responded to a 34-item test administered before and after the training.
3. Fifty percent of respondents to a follow-up questionnaire six months after the training reported making some applications of skills learned.
4. A follow-through impact study of classroom effects by teachers who receive this training was concluded in 1975.
5. An independent evaluation study conducted at the University of Idaho found significant attitude change on the part of teachers, in addition to cognitive and skill gains.

This system was developed over a four-year period involving repeated rounds of trial and revision with K-12 teachers and administrators. Evaluation included pilot trials, interim formative testing, and a summative field test where developers were not involved.

Main Activities:

Emphasis of the entire design is on teachers and administrators practicing their "do it" skills to perform the problem-solving process. Continuous active participation is demanded by using a simulation situation in which the trainee "helps" a fictitious teacher/principal solve a problem using the RUPS model. RUPS provides teachers and administrators with competencies in:

- o Applying four guideline criteria for writing a problem statement.
- o Paraphrasing in interpersonal communications.
- o Using the force field diagnostic technique.
- o Selecting and creating instruments for data gathering.
- o Diagnosing teamwork relationships.
- o Spotting and analyzing major results in data collected.
- o Identifying one's personal style of operationalizing dimensions of teamwork behaviors.
- o Utilizing concepts and skills of giving and receiving feedback.
- o Using criteria for deriving implications from research findings.
- o Brainstorming action alternatives to meet implications derived from findings.
- o Applying guidelines for planning and implementing action alternatives.
- o Identifying and evaluating small group dynamics.
- o Planning a backhome project.
- o Evaluating solution plans.
- o Conducting a backhome RUPS project.

Provisions for Use:

Format: Designed as a teacher in-service workshop.

Personnel: The basic learning group is a sextet in which teachers/administrators train each other using criteria provided in the materials. A workshop leader gives instructions from a manual guiding teacher/administrator trainees through the design. The workshop leader needs to be familiar with the materials and design, but does not need to be an expert in the RUPS process.

Product Components: There are two sets of materials for RUPS workshops. Both versions treat the areas of problem solving and teamwork skills with the following materials:

- o Participant materials divided into 16 units of instruction with accompanying exercises and test.
- o Leader's guide provides an instructional strategy for each of the units as well as a statement of purpose, objectives, and rationale.
- o Text -- Diagnosing Professional Climate of Schools (Administrator version) and Diagnosing Classroom Learning Environments (Classroom version)
- o Audio tapes accompany and are keyed to each of the texts.

Time Span: The design calls for a five-day workshop followed by two three-hour meetings while engaged in a backhome application project using the RUPS process.

Conditions of Use: The recommended workshop arrangement is to cover the first 14 units in a five-day workshop. The last two units are then presented as follow-up. The group should be limited to 24-30 participants. The exercises are designed for groups of six.

Related Materials: Other workshops of the Improving Teaching Competencies Program are:

- Interpersonal Communications (See A 2.10)
- Preparing Educational Training Consultants: Skills Training (PETC I) (See A 2.13)
- Preparing Educational Training Consultants: Consulting (PETC II) (See A 2.17)
- Preparing Educational Training Consultants: Organizational Development and Organizational Self-Renewal (PETC III) (See A 2.18)
- Interpersonal Influence (See A 2.19)
- Social Conflict and Negotiative Problem Solving (See A 2.20)

Ordering Information: Write:

Commercial Educational Distributing Services
P.O. Box 3711
Portland, Oregon 97208

Cost:

Classroom Version	
o Participant Materials (281 pp.)	$ 8.00
o Leader's Guide (282 pp.)	11.00
o Text	4.00
o Audio Tape	3.85

Administrative Version	
o Participant Materials (287 pp.)	$ 7.90
o Leader's Guide (287 pp.)	11.10
o Text	7.75
o Audio Tape	3.80

Title: Instructional Development Institute

Descriptor: A 40 hour training program designed to provide initial skills and competencies in applying instructional systems principles to learning and teaching problems in a local school or school district.

Publication Date(s): Revised training progrm scheduled for release in fall 1977

Originator: Originally funded by USOE; now a National Special Media Institutes Project supported by United States International University, under the direction of:

Dr. Jack Edling
United States International
University
8655 Pomerado Road
San Diego, California 92124
(714) 271-4300 (Ext. 246)

Dr. Dale Hamreus
United States International University
8655 Pomerado Road
San Diego, Califorenia 92124
(714) 271-4300 (Ext. 491)

Intended Users: The training program is designed for use by large and small groups made up of teachers, administrators, (district level superintendents, assistant superintendents of instruction, principals, and assistant principals), board members, and curriculum content and media specialists.

Purpose: Developers claim that the overall purpose "is to assist school systems with limited resources, substantial numbers of academically or culturally deprived students, and a real desire to find innovative and effective solutions to consequent learning, and instructional problems."

Goals: Two program goals state that participants will:

1. Be motivated toward instituting changes and new programs in their schools and districts
2. Be provided training in the skills necessary for instituting change and new programs.

Objectives: Specific objectives are listed for each of the eight (8) units in the program as listed under "content."

Content: There are seven contiguous and related units, as follows: Unit 1: The Context of Instructional Development; Unit 2: Introduction to the Instructional Development Process;

Content: (Cont.)

Unit 3: Innovation Interaction Game; Unit 4: Problem Definition and Organization; Unit 5: Specification of Objectives; Unit 6: Specification Methods; Unit 7: Evaluation and Implementation. This can be more succinctly stated by listing the steps of the "functional model," which is also the basis for the IDI program:

1. Define problem
2. Analyze setting
3. Organize management
4. Identify objectives
5. Specify methods
6. Construct prototypes
7. Test prototypes
8. Analyze results
9. Implement/recycle

Usefulness Related to CBE:

An important step in the CBE process is program improvement.. Once an instructional problem has been identified at this step, it is necessary to develop feasible alternative plans. IDI will provide training necessary for local personnel to accomplish the latter.

History of Development:

As of December, 1974 more than 400 institutes had been held, involving over 20,000 participants. Materials and methods are revised periodically as pre- and post-test data are generated. Summaries of this evaluation documentation are available through UCIDT headquarters.

IDI training programs have enjoyed a wide acceptance in school districts and have been found successful in generating plans for instructional improvements.

Main Activities:

The institute includes both large, and small group activities consisting of simulations, games, media, presentations, opportunities to generate plans and materials on selected local problems and opportunities to analyze and evaluate both individual activities and the program as a whole. Unit tests provide immediate feedback.

Provisions for Use:

Format: The program is administered by a team of four people.
Personnel: The IDI will accommodate only 50 participants at one time. The four person team selected will have to receive eight days of training in order to conduct the institute.
Product Components: The institute consists of a complete system including print and non-print materials:

- o Teacher's Manual (3 volumes)
- o 27 slide/tape presentations
- o 15-16 mm films

Provisions for Use: (Cont.)

- o 5 programmed tapes
- o Games
- o Print materials--workbooks, reference sources, examinations, and information sheets

Facilities must include a room for projection along with necessary multi-media equipment. In addition, five smaller rooms are needed for small group meetings and activities.

Time Span: Forty classroom hours of instruction are divided into eight sequential units to be completed in two days per week sessions over a three week period.

Conditions of Use:

Developers state that "the only prerequisite of this system is that the learner be actively involved in determination of educational curriculum."

Related Materials:

None

Ordering Information:

For further information contact:

Dr. Dale Hamreus
United States International University
8655 Pomerado Road
San Diego, California 92124

Title:	Designing Effective Instruction (formerly Principles and Practices of Instructional Technology)
Descriptor:	A 15-unit workshop in which curriculum specialists write objectives and design and evaluate instruction.
Publication Date(s):	1970 (Second Printing)
Originator:	General Programmed Teaching (GPT)
Intended Users:	The materials in this kit provide the user with comprehensive study in instructional materials development. It would be most appropriately used by specialists involved in materials development.
Purpose:	This workshop approaches the complex process of teaching with the assumption that every teacher is an "instructional technologist." It begins with a basic approach to instruction and becomes increasingly more involved with specific considerations in developing instructional materials. Goals: The goal of the workshop is to assist participants in the "design of effective instruction." Objectives: Each of the 15 units has three to ten specific behavioral objectives stated. An example is shown here as taken from Unit 7, Entry Level Tests: 1. The student will name the two design documents used in developing an entry level test. 2. Given three entry level profiles, the student will describe the entry level of each in relation to the course. 3. Given guidelines, the student will develop a "student contract" as one method of individualizing.
Content:	The units included in this kit cover the following areas: 1. Introduction to Basic Principles 2. General Goals, Affective Objectives, and Cognitive Objectives 3. Main Components of an Objective: Behavioral Terms, Conditions, and Standards 4. Classification of Objectives 5. Criterion Tests 6. Determining Entry Level 7. Entry Level Test 8. Stimulus and Response 9. One-Way and Two-Way Stimulus Response 10. Content Analysis 11. Stimulus Response Pairs in Chain Activity 12. Influence of Objectives and Deriving Content 13. Developing Objectives and Deriving Content

Content: (Cont.)	14. Programmed Lesson Plans and Instructional Media 15. Validation A glossary of terms introduced with each unit is included.
Usefulness Related to CBE:	As it relates to the specialist in materials development, this workshop could be of value in implementing a sophisticated program of teamwork involving the specialist and classroom teachers.
History of Development:	The original product was partially funded by USOE. The developers state that two years were devoted to the production, but quantitative or qualitative data on the product's effectiveness are not included. Teachers from a school district in New York made extensive "comments" and a field test was undertaken by one professor at San Francisco State College, but there is no statement to indicate whether or how the comments and feedback were used for revision.
Main Activities:	Users individually or in groups view a sound/filmstrip for all but three of the units. Each participant is given a workbook in which objectives and a glossary are written for each unit. In addition there are questions to be answered during the filmstrip viewing. The three units which do not include filmstrips provide an activity applying concepts that have been covered to that point.
Provisions for Use:	Format: This multimedia kit may be used by individuals or small groups. Personnel: There is no indication of a maximum number of participants in each group, nor is there any explanation of how the workshop might be administered, although a monitor's manual is included in the complete kit. Product Components: The workshop kit includes 15 audio tapes, 12 color filmstrips, 10 participant workbooks, a monitor's manual, and a scriptbook. Time Span: The actual completion time for the workshop is 20 hours, to be scheduled according to individual needs.
Conditions of Use:	It would appear that participants in this workshop should have broad prior experience with CBE as well as a background in the field of instructional technology.
Related Materials:	None
Ordering Information:	Write: General Programmed Teaching Quail Hill San Rafael, California 94903 Cost: Complete workshop with audio on 5" reels $650.00

Ordering Information: (Cont.)	Audio on cassettes	$675.00
	Workbooks	5.95
	First five units with audio on cassettes	55.00 per unit
	Workbook for first five units	2.00

(Discounts are available for all quantity orders)

Title: Learning System Design (LSD)

Descriptor: A multimedia series for use in pre-service or in-service, which outlines techniques of instructional design.

Publication Date(s): 1973 (Teacher's Manual and Student Workbook); 1974 (Textbook)

Originator: Allan J. Abedor (assisted in development), Lawrence T. Alexander, Robert H. Davis, and Stephen L. Yelon, Michigan State University

Intended Users: Students in pre-service training, teachers in in-service training, and training in business, industry, and the armed services.

Purpose: The authors feel that instructional design should be a function of the classroom teacher.

Goals: There are three major goals identified by the authors of this series: (1) analyze subject matter; (2) design learning systems; and (3) evaluate learning systems.

Objectives: Units in this series are preceded by a statement of a terminal objective and enabling objectives. The following example has been taken from Unit 1 -- Overview of Learning Design:

Terminal Objective

You will be given a filmstrip-tape presentation which illustrates a well designed learning system. After viewing the filmstrip-tape presentation, you should be able to recognize: a description of the current state of the system, a learning objective, a task description, and an evaluation plan.

Enabling Objectives

- Match instructional problems with their causes described in the chapter.
- Recognize the components of the learning system design process.
- Given a list of assumptions, correctly identify those that underlie the learning system design process as described in the book.

There are "chapter objectives" included in the textbook as well. For example, after reading Chapter 1 (Overview of Learning System Design) the student should be able to:

- Match instructional problems with their causes.
- List components of the learning system design process.
- Given a list of assumptions about teaching and learning skills, correctly identify those that underlie the learning system design process as described in this chapter.

Content: Chapters in the text include learning objectives, questions by which the reader may gauge learning, and end-of-chapter test. Students practice material presented in the chapters through the ten units in the workbook and filmstrip-tape presentations. The Teacher's Manual describes each unit, provides lesson plans, and suggests discussion topics and assignments for each unit.

Textbook, workbook, and filmstrip-tape presentations work interdependently. The pattern usually begins with required reading from the text. Material introduced in reading is further explained with examples in the filmstrip-tape presentation. Users then apply this information to writing assignments in the workbook.

Topics in the units are:

- Unit 1 is an overview of Learning System Design.
- Unit 2 covers developing and writing learning objectives.
- Unit 3 is on evaluation of learning systems.
- Unit 4 is on task descriptions.
- Unit 5 covers two topics: (1) types of learning and (2) analyzing learning tasks into their component types of learning.
- Unit 6 discusses general principles of learning and motivation.
- Unit 7 is on the learning and teaching of concepts and principles.
- Unit 8 concentrates on the learning and teaching of problem solving.
- Unit 9 is devoted to learning and teaching perceptual motor skills.
- Unit 10 is on the system approach to instruction.

Usefulness Related to CBE: Concepts and principles presented in this product should be useful to any student interested in the learning system design process.

History of Development: Volunteer students were obtained from one section of a course. They were told that a new text and set of AV materials were being developed and feedback was needed from representative students in order to identify major instructional problems and design appropriate revisions.

For 10 weeks, the students met with the authors in two-part formal debriefing sessions devoted to (1) an analysis of comments and reactionnaires regarding the text, and (2) viewing and feedback on the AV materials. During the first part of the session problems were identified in the text and a consensus obtained regarding revision.

In the second part, each student was given a student workbook prior to viewing the filmstrip-tape presentation.

History of Development: (Cont.)

Students were asked specifically to explain their problems so that a consensus could be established to determine whether a problem was specific to an individual or was generalized to at least 25% to 30% of those using the materials. If the latter was true, students were asked to suggest an appropriate revision.

Main Activities:

Students listen to tapes and watch filmstrips. Textbook reading is always required prior to the viewing.

Activities in the workbook vary, but specifically include making an evaluation plan, developing a flow diagram of a task, analyzing a task, rating teacher performance, observing teaching technique, identifying types of learning, and designing learning systems.

Posttests are included with every chapter in the textbook. The posttest may be used as a pretest, but, it is important to recognize that the posttest reflects the way the authors have organized the material.

Provisions for Use:

Format: To be used as part of a course or workshop.
Personnel: When used to train future teachers, the product should be incorporated into a formal course where an instructor is available to guide and facilitate student learning.

Teachers or trainers in service could use the product independently. The authors feel that experience in teaching will provide a sufficient background and suitable frame of reference for understanding and applying the principles and techniques discussed.

The film-tape presentations were designed to enable students to practice skills introduced in the student workbook; they were not intended to replace a teacher. The authors might be considered as "guest lecturers" who provide the system students with somewhat different perspectives on learning design and who can lend some variety and novelty to a basic course. Suggested modes of presentation are offered in each unit. These may be mixed or individualized depending on the group's abilities and modes.
Product Components: Textbook (available from McGraw-Hill); 12 filmstrip-tape presentations; Student Workbook (used in conjunction with the slide-tape presentations); and Teacher's Manual.
Time Span: The product could easily be integrated into a term's or semester's pre-service course. There is no mention of time (either suggested or ideal) for an in-service. This would be left entirely to the discretion of the user group.

Conditions of Use: The first five units were developed to teach how to analyze subject matter and evaluate learning systems; they should be studied in sequence. The last five units may be studied in the order that seems appropriate to the student and teacher.

Related Materials: None

Ordering Information:

Write:

Marketing Division
Instructional Media Center
Michigan State University
East Lansing, Michigan 48824
(517) 353-3376

Cost:

Filmstrips and tapes	$199.50
Student Workbooks	2.95
Textbook	
Preview Package	15.95
Teacher's Manual	
Student Workbook	
Preview Filmstrip-tape	

Title: Classroom and Instructional Management (CLAIM)

Descriptor: An eight-unit teacher training program concentrating on development of positive classroom environment through behavior analysis.

Publication Date(s): 1975

Originator: Instructional Systems Program, Central Midwest Regional Educational Laboratory, Inc. (CEMREL)

Intended Users: Primarily, for teachers and administrators of preschool and early elementary levels. With modifications, it also could be used with older elementary, junior high, and high school levels.

Purpose: Goals: The program is designed to show teachers how they can reduce behavior problems in the classroom making it a pleasant place in which to work.

Objectives: At the beginning of each unit in the *Participant's Manual* are objectives which the user should expect to master upon completion. The following is an example taken from Unit 2 -- "What Influences Behavior?" The objectives state that at the end of this unit a teacher will be able to:

1. Analyze specific behaviors and tell what events control or influence them.
2. Recognize reinforcement and punishment procedures as they operate in classroom situations.
3. Select a menu of potential reinforcers to strengthen behaviors, including social reinforcers, activity reinforcers, edible reinforcers, and material reinforcers.
4. Use several strategies to discover potential reinforcers for a class of children.
5. Assess whether a potential reinforcer is effective with a particular child.
6. Identify several methods of weakening undesirable behavior.

Content: The program consists of eight units which cover the following topics:

- an introduction to behavior analysis
- what influences behavior
- pinpointing behavior
- planning progressions and measuring results
- social reinforcement
- the token economy
- contingency contracts
- response weakening techniques
- peer tutoring and scheduling

Content: (Cont.) The emphasis in all units is in discovering new methods to approaching and solving problems.

Usefulness Related to CBE: Each unit is prefaced with a set of objectives outlining competencies that teachers will have at the end of the unit. Teachers involved in this program will have a better understanding of how their behavior influences children.

History of Development: Research conducted with children of severe learning and behavior problems from 1968 to 1973 provided the basis for material in this program. During a six-year period the research has been applied in about 15 field test sites in Missouri and Tennessee. Over 100 teachers and administrators have been through this training. An evaluation of 43 teachers in St. Louis County showed a significant impact on teacher behavior. In all cases there was a decrease in undesirable student behavior.

Main Activities: In each of the units there are numerous paper and pencil exercises which provide immediate feedback on readers' comprehension. The units are read and exercises completed prior to group sessions. There are also practice exercises which users complete in a classroom situation, as well as four filmstrips provided to enhance understanding of concepts and techniques in the program.

Provisions for Use: Format: The course is self-instructional so that teachers may read units and do exercises individually; or, they may work together in a group under the direction of a coordinator.

Personnel: Groups of eight participants are suggested. While a coordinator is not required, a Coordinator's Manual is included which provides information on planning and organizing sessions. No training is needed for the coordinator, but that person should be willing to read the materials in advance. This person might be one of the teachers, the principal, a consultant, etc. Developers strongly recommend a coordinator during the first few sessions to provide encouragement for the group.

Product Components: A full set of materials for the training program includes:

- Coordinator's Manual
- Participant's Manual for each participant, plus one for the coordinator
- four filmstrips
- four cassette tapes

Time Span: This is varied depending on participant interest and time available. Three plans are provided which show how the program can be scheduled with either 14, 10, or six sessions. Developers recommend at least 10 sessions, with individual sessions held no less than a week apart.

Conditions of Use: It is not essential for either participant or coordinator to have previous knowledge of behavior analysis. There are several possibilities for moving through the program:

- o participants meet as a group upon completion of each unit, with or without a coordinator;
- o instead of meetings, the coordinator meets with each participant occasionally during the course; or
- o without coordinator or meetings, teachers may have informal discussions among themselves.

Related Materials: None

Ordering Information:

Write: Walker Educational Book Corporation
720 Fifth Avenue
New York, New York 10019
(212) 265-3632

Cost: $180.00 includes the following:
Coordinator's Manual
Eight *Participant's Manuals*
Four filmstrips
Four cassette tapes

Each teacher needs a copy of the *Participant's Manual*.

Title:	Mastery Teaching
Descriptor:	An audio-visual-print program designed to equip teachers with skills and a plan for increasing the achievement of their students.
Publication Date(s):	1975 (Revised Edition)
Originator:	James R. Okey and Jerome L. Ciesta at the National Center for the Development of Training Materials in Teacher Education.
Intended Users:	Classroom teachers who wish to become proficient with a plan for "mastery teaching."
Purpose:	Goals: There are six statements of purpose, one for each of the learning sections in the program. They are to: 1. Present a five-point plan for improving pupil performance. 2. Show how to select and sequence objectives for a unit. 3. Prepare diagnostic items as well as test items for objectives. 4. Identify tasks with which students are having difficulty. 5. Determine which tasks have been failed, why students have been unsuccessful, and what strategy and materials to use in reteaching efforts. 6. Analyze Mastery Teaching and measure its effectiveness. Objectives: There are three objectives written for each of the six sections. These are 18 enabling objectives for the above goals.
Content:	The six sections are titled and include the following: o A Plan for Mastery Teaching introduces the five-point plan for implementing a mastery learning program, based on Bloom's theory of mastery learning, i.e., most students can master the material in a course. o Identifying and Sequencing Objectives provides information on where to locate objectives without writing them and also provides practice and instruction in creating sequencing arrangements for thinking skills. o Developing Evaluation Measures gives suggestions on preparing test items. o Identifying Learning Difficulties describes and provides practice in methods of determining performance of students and their learning difficulties; also methods of recording and scoring tests. o Prescribing Instruction develops skills in determining why students fail; planning strategies for corrective instruction.

Content: (Cont.)

- o Measuring the effects of Mastery Teaching describes methods and provides practice in analyzing the degree of effectiveness of the mastery teaching implementation

Usefulness Related to CBE:

The classroom teacher will be able to go far beyond knowing how to write a performance objective. There will be increased understanding through a meaningful use relative to the daily teaching tasks.

History of Development:

An earlier version of this program was developed by the same individuals with support from the National Center for the Improvement of Educational Systems. Revision, preparation, and evaluation of this version was done with support from Teacher Corps, U. S. Office of Education. However, there is no documentation of how the evaluation was used or with whom it was conducted. A report on the effects of studying this module in terms of pupil learning is included in Report No. 2 of the National Center for the Development of Training Materials in Teacher Education.

Main Activities:

Participants wil be directed to use audio-visual materials to take self-tests and correct them, to complete practice exercises, and to carry out a classroom project. Each of the sections is preceded by a statement of purpose and objectives from which participants are asked to begin.

Provisions for Use:

Format: Mastery Teaching can be used by teachers working alone or in groups. Group study is encouraged by the developers, however.

Personnel: There are no limitations set on the number of participants to be accommodated by the audio-visual materials. However, each participant will need a copy of the Mastery Teaching manual.

Product Components: The complete set includes:

- o 4 audio cassettes
- o 7 filmstrips
- o 1 manual

Time Span: 4 hours.

Conditions of Use:

A pretest is provided to test the participants' skill in writing performance objectives (a prerequisite for this module).

Related Materials:

None

Ordering Information:

Center for Development in Teacher Education
Indiana University
2805 East Tenth Street
Bloomington, Indiana 47401
(812) 337-1013

Ordering Information: (Cont.)	Cost:	4 audio cassettes @ $6.50	$26.00
		7 filmstrips @ $8.50	59.00
		1 manual @ $5.00 (each participant needs a copy)	5.00
		Total	$90.50

Title:	Toward Competency: A Guide for Individualized Instruction
Descriptor:	A guide to assist special education teachers in developing programs of instruction for students unable to complete the regular school program.
Publication Date(s):	March 1974: Student Edition reprinted November 1975
Originator:	Special Education Section, Oregon State Department of Education
Intended Users:	The resource is intended for use by educators charged with providing learning programs for students of low academic potential.
Purpose:	Developers state that the "philosophy underlying this guide is that the teaching of special education students is most appropriately accomplished through a systematic approach to individualized instruction." Goals: The following, as stated by developers, is seen as the major goal of the guide: "In order to facilitate the development of graduation requirements and to apply them fairly to mentally retarded students, who may or may not be able to benefit from partial or full-time placement in the regular school program, the Special Education Division recommends that school districts use Toward Comptetency as a guide to develop course goals, additional competencies (when needed) and performance indicators for retarded students." Objectives: There are no specific objectives stated for this guide.
Content:	There are two guides -- the Teacher Edition and Student Edition. Both of these contain the following: 1. Six major curriculum areas -- basic skills, personal and social awareness, living in the environment, career education, human ecology, and leisure-time activities. 2. Sections -- the subject matter is organized within each of the six curriculum areas into sections by topics. These curriculum sections comprise an educational framework designed to carry the instruction of the student from first grade through high school. 3. Goals and SubGoals -- goals are stated in terms of general student expectancies and considered long-range guidelines: subgoals focus on the acquisition of intermediate skills and considered short-range goals. In addition to the above, the Teachers Edition also contains Criterion Measurement Statements which specifies the performance requirements to be met by a student before a subgoal can be considered learned. A feature of the Student Guide is the grid for recording student achievement.

Usefulness Related to CBE: The guide will assist teachers to conduct quality programs provide acccountability for what students are taught, and maintain continuity among the special instructional programs in the state.

History of Development: Development began in 1972 with a statewide evaluation of a guide used by Portland's Special Education Department. Results of the evaluation were used as a basis for writing a new guide. It was later field tested with 45 special education programs serving approximately 675 students. Other state agencies, professional groups, and consumer organizations were asked to analyse the content of the guide. In addition, a questionnaire was sent to 300 special education teachers who had attended in-services on the guide and had either used or evaluated its content. Two follow-up institutes were held in order to evaluate results, refine content and add Criterion Measurement Statements.

Main Activities: Teachers using this guide will be assisted in the following:

1. To pre-assess the performance and needs of individual students.
2. To select curriculum goals/sub goals, from the guide's hierarchy of skills, which meet individual student needs.
3. To establish criteria that measure individual student performance on selected sub-goals.
4. To plan instruction relative to individual criterion measures.
5. To measure and record student performance relative to individual criterion measures.

Provisions for Use: Format: The two guides are self-instructional for either the teacher or student.
Personnel: Individual students and teachers will need a copy of the guide.
Product Components: Teacher Guide; Student Guide.
Time Span: The guides are designed to assist in a full year's curriculum planning.

Conditions of Use: There are no apparent constraints on the use of this guide.

Related Materials: None

Ordering Information:
Documents Clerk
Oregon State Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

Title: The Analysis of Behavior in Planning Instruction

Descriptor: A textbook in methods of designing and evaluating curriculum materials.

Publication Date(s): 1976, 450 pp.

Originator: James G. Holland, Carol Solomon, Judith Doran, and Daniel A. Frezzan, Learning Research and Development Center (LRDC), University of Pittsburgh

Intended Users: Primary intended users are advanced undergraduate and graduate students. Secondary users listed by the authors are "university faculty members, industrial-training-division staff members, writers on curriculum-development projects, school administrators, classroom teachers, and educational policymakers."

Purpose: The purpose of this text is to present principles of curriculum design in the context of learning principles derived from the science of behavior.

Goals: The authors state that their main goal is to "speak directly to the needs of people attempting to write educational or training materials and to those who are responsible for selecting educational materials.

Objectives: Four objectives for users of the text are stated by the authors. Students will learn to:

1. describe the principles derived from the experimental analysis of behavior;
2. state learning tasks in behavioral terms;
3. describe the extent to which instructional materials reflect the principles of the science; and
4. design and produce curriculum materials that achieve a given learning task and are in accord with scientific principles.

Content: The test is organized into six parts which contain a total of 31 units:

- Part I, "Behavior Theory and the Technology of Teaching," supplies an overview of behavior theory and gives examples of applications.
- Part II, "Behavior Theory in Practice," discusses the experimental analysis of behavior.
- Part III is "Preparation for Teaching: Analysis of the To-Be-Learned Behavior."
- Part IV, "Teaching -- Selecting and Writing Instructional Materials," provides instruction in evaluating lessons and instructional materials, and in writing instructional materials.
- Part V, "The User of Tests," discusses how tests can help in the development of instructional materials.

Content: (Cont.)

- o Part VI, "People to People," shows how behavior analysis can be used in open instructional settings.

Usefulness Related to CBE:

The skills of curriculum design that are taught in this textbook are applicable in a CBE context. This text would be especially appropriate for persons with a behavioristic orientation and philosophy.

History of Development:

The material in this text has undergone three cycles of test and revision. Ten students under the direction of the developer were the first test group. These students used the material in an intensive six-week institute. Student response to unit questions, student produced curriculum materials, and pretest-posttest results were used to make revisions.

The revised text was used with 16 students in a graduate course in curriculum design at the University of Pittsburgh. During this test, the same kind of data were gathered as during the first test. These data were used to revise the text further.

The second revision was used with 46 undergraduates at Emerson College in Boston. Data from this test were useful, the developers state, "in guiding the authors through an extensive revision to simplify the course and to eliminate troublesome areas."

The final revised version is this current text.

Main Activities:

Each part is divided into two or more units, and each unit generally contains:

- o a statement of its content
- o one or more learning objectives
- o a set of instructions to the student about how to use the material in the unit in order to achieve the objective(s)
- o a narrative section
- o a set of references
- o a set of questions designed to test the mastery of the unit's objectives

Students are normally instructed to read the objectives of a unit, to study the narrative material, to answer the questions, to check answers with suggested answers in the back of the text, and to discuss their work with the instructor.

Three of the units are called project units, and these involve students in the development of teaching materials in their own subject areas. Work in these units is intended to be critiqued by the student's instructor or peers.

Provisions for Use:	Format: This text may be used as part of a college course, as a self-instructional tool, or as a common text for a learning group without an instructor. Personnel: This text is intended to be used by one person. In classroom or group situations, each participant will need a copy. An instructor utilizing this text should be thoroughly conversant with behaviorist theory and practice. Product Components: A teacher's manual is available as a supplement to the basic text. It describes supplementary materials that may be used with the basic text. Time Span: The authors state that "students who are already familiar with some aspect of the material covered in the course ...are easily able to complete the course in brief, intensive sessions of six to eight weeks... Students who are approaching this content for the first time will require a full semester."
Conditions of Use:	Use of this text by school personnel would probably entail a substantial amount of time -- at the minimum, six to eight weeks.
Related Materials:	None
Ordering Information:	Copies of the text are available from: Addison-Wesley Publishing Co. Jacob Way Reading, Massachusetts 01867 Costs are $12.95 for the text and $2.00 for the teacher's manual.

Title: Preparing and Using Individualized Learning Packages for Ungraded, Continuous Progress Education

Descriptor: A textbook for educators presenting the Individualized Learning Package approach to instructional management through curriculum design

Publication Date(s): April 1972 (Second Printing)

Originator: Philip G. Kapfer, University of Utah, Salt Lake City, Utah; Glen F. Ovard, Brigham Young University, Provo, Utah

Intended Users: Anyone in education responsible for design and development of instructional materials for individualizing educational programs.

Purpose: The authors contend that this book is "different because it develops a means whereby materials for an ungraded, individualized curriculum can be created and used within the present structure of our school systems."
Goals: The emphasis of instruction in this text is on explaining the purpose of ILP's and the relationship to individualizing.
Objectives: The text is written as nine Individualized Learning Packages. Each of the packages is prefaced with two or three learning objectives.

Content: The following are titles of the nine ILP's in the text:

- o A View of Individualized Instruction and Continuous Progress Education
- o What Will Be Learned? (Concept, Skill and Value Statements)
- o What Changes Will Occur? (Learning Objectives)
- o What Will Facilitate Those Changes? (Individualized Learning Materials and Activities)
- o What Can Evaluation Do To Help? (Pre-, Self- and Post-Assessment)
- o What Comes Next? (Quest)
- o Organizing for Alternative Instructional and Learning Approaches
- o New Teacher-Learner Roles in an Individualized Learning Package System
- o Evaluating the Individualized Curriculum and the Continuous Progress System

Usefulness Related to CBE: A practical approach is provided in this text for clarifying the role of instruction in facilitating a completely successful CBE program.

History of Development: The authors have worked on a consultant basis with elementary and secondary teachers throughout the country. They indicate that this text is the result of much of this work. They do not provide specific information relative to its field testing, however.

Main Activities: Each of the nine ILP's includes learning activities. While these vary with each package, they are similar in sequence. First, the student must read for understanding: (1) the concept statement for the ILP; (2) the list of the sub-concept statements for the ILP; (3) the list of the learning objectives for the ILP.

Next, the student takes a pretest which covers all the learning objectives. Then the student will complete one or more learning activities, usually reading with a follow-up assignment for application. A posttest is given covering all the learning objectives for the ILP. Finally, suggestions are given for further reading and research.

Provisions for Use: Format: The text is self-instructional, but it is written to distinguish information designed specifically for the student from that for the teacher.
Personnel: If this text is used in a course or workshop, the instructor will need to have a clear understanding of the purpose and content of ILP's.
Product Compontents: Textbook only. Required reading assignments are included in the text. Any additional reading or viewing is the responsibility of the student.
Time Span: None is indicated. Used in a pre-service course it would probably take a full quarter or most of a semester to complete.

Conditions of Use: There do not appear to be any constraints on the use of this text.

Related Materials: Other books from the same publisher are:

- Behavioral Objectives in Curriculum Development - Selected Readings and Bibliography. By Miriam B. Kapfer.
- Curriculum Design in a Changing Society. Edited by Richard W. Burns and Gary D. Brooks.
- Handbook of Curriculum Design for Individualized Instruction - a Systems Approach. By Sidney J. Drumheller.
- Criterion-Referenced Measurement. Edited by W. James Popham.

Ordering Information:

Educational Technology Publication
Englewood Cliffs
New Jersey 07632

Cost: $8.95

Each student will need one copy of the text.

Title:	Discipline in the Classroom #15
Descriptor:	A filmstrip-tape program for teachers illustrating how to apply contingency management procedures to problems of classroom control.
Publication Date(s):	1969
Originator:	Eva L. Baker, Graduate School of Education, University of California, Los Angeles
Intended Users:	Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.
Purpose:	Goals: None stated. Objectives: The author states that, at the conclusion of the program, the learner will be able to: 1. List the six disciplinary rules given in the program. 2. Identify whether teachers' responses to hypothetical disciplinary situations are consistent with those six rules. 3. Given the description of a discipline problem, propose in writing a solution which is in accord with the principles stated in the program.
Content:	A six-rule strategy is identified in the discussion of classroom discipline: 1. attend to observable behavior 2. define limits of acceptable behavior and communicate these to your class 3. do not reward undesired behaviors 4. avoid punishing undesired behaviors 5. provide an acceptable alternative student response for undesired behavior 6. reward appropriate behaviors
Usefulness Related to CBE:	The program provides guidance for teachers in the unresearched area of appropriate strategies for different situations of disciplinary problems.
History of Development:	This information is not complete. Field testing was done with 80 secondary education credential candidates at UCLA. The author states that "pre- and posttest gains on all three parts of the examination were significant beyond the .01 level (sign test)."
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

Main Activities: (Cont.)

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. Learners should be encouraged to bring in actual disciplinary problems from their classrooms. The group can use these to discuss methods of treatment applying rules discussed in the program.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Individualizing Instruction #21 (See C 3.10)
- Appropriate Practice #5 (See C 3.8)
- Knowledge of Results #12 (See C 3.15)
- Perceived Purpose #6 (See C 3.5)
- Instructional Supervision: A Criterion-Referenced Strategy #17 (See C 3.14)
- Systematic Instructional Decision-Making #2 (See C 3.6)

Ordering Information:

Write:
Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Individualizing Instruction #21

Descriptor: A filmstrip-tape program for teachers describing how to adapt classroom instruction to individual differences among learners.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author lists four specific objectives for the program. At the conclusion of the program the viewer will be able to:

1. Distinguish between descriptions of individualized instruction based primarily on (a) individualized objectives or (b) individualized instructional procedures.
2. List and briefly describe three school organizational patterns recommended for individualizing instruction.
3. Supply three or more specific instructional procedures suggested for use in (a) large group instruction, (b) small group instruction, or (c) independent study.
4. Generate a written description of an individualized instructional program which, in contrast to a description written prior to completing the program, will be judged as essentially more attentive to the individual learner.

Content: There are two points of emphasis in the program. First, the distinction between individualizing objectives and individualizing instructional procedures is clarified. Second, school organization patterns are shown which facilitate these instructional procedures.

Usefulness Related to CBE: Teachers involved in this program should become more aware of attending to individual learning needs in planning for instruction.

History of Development: The program was field tested with 25 graduate students at the UCLA Department of Education. The data of pre- and posttesting results follows: Part I: pretest 52% and posttest 92%; Part II: pretest 36% and posttest 88%; and Part III: pretest 24% and posttest 72%. On Part IV there are no no pretest results; however, 21 of the 25 posttest responses were judged superior.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual

Main Activities: (Cont.)

group needs. In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. It is suggested that Part IV of the examination be used for discussion. In this part learners are asked to design an instructional program which is more "attentive to individual learners."

Related Materials:

None.

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Organizing Independent Learning: Primary Level (Minicourse 8)

Descriptor: A teacher training minicourse illustrating organizational skills for individualizing instruction.

Publication Date(s): 1971

Originator: Beatrice Ward and Marilyn Madsen, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Head Start and day care personnel as well as primary grades (K-3) teachers who want to adjust the learning environment to incorporate independent study.

Purpose: Goals: The course goal for Minicourse 8 is as follows: "To provide teachers with a set of skills that will establish for primary level children an understanding of how to work independently, including a knowledge of responsibilities without the presence of an authority figure."

Objectives: There are four instructional sequences for which objectives are written:

1. To develop teaching skills that establish the concept of working independently.
2. To build teacher skills that lead to pupil skill in solving problems that occur during independent work periods.
3. To develop teacher-learner expectations for delayed teacher response to pupil work.
4. To combine independent work, problem solving, and delayed response into a learning environment using independent activity and small group instruction.

These objectives are made more specific with a list of teacher behaviors identified for each. The following is an example which speaks to the first objective: "Discuss 'working alone' with pupils using a story or example."

Content: There are three major topics covered in the course: (1) introducing concept of independent work; (2) helping students identify problems which might be encountered; and (3) discussing delayed response.

Usefulness Related to CBE: This course will provide teachers with a vehicle for implementing a competency-based classroom instructional program regardless of subject area or grade level.

History of Development: The minicourse went through a comprehensive field testing with use in schools in California (Fremont, Fresno, and Mill Valley) and in Rockville, Maryland.

History of Development: (Cont:)

Over 200 teachers went through the course as part of an effort to determine its success. The authors state that the results showed the course to be effective.

"To determine whether they continued to use the skills, teachers were interviewed two years after completion of the main field test. One hundred percent of the teachers indicated they were still using some form of independent contracting." This use ranged from total conversion to the minicourse design to contracting in one or two subjects. The authors state further that "over ninety percent of the teachers stated that independent contracting was becoming a more important part of their instructional program every year."

Main Activities:

Each of the instructional sequences follows the same basic plan. On Day 1 the teacher reads about the skills to be introduced in the teacher's handbook, and views the instructional film. The film shows demonstrations in use of skills and model lesson films which reinforce learning. On Day 2 the teacher microteaches using the skills with 4-5 students, and then evaluates performance, using a self-evaluation form in the teacher's handbook. On Day 3 the teacher reteaches with the entire class, and observes the success of students' performance.

Feedback is provided through self-evaluation and peer interaction.

Provisions for Use:

Format: The course is self-instructional. If a group of teachers are working through the course, a coordinator is essential to complete some administrative tasks.
Personnel: The coordinator's responsibility is to make arrangements for scheduling of the program. A handbook is included which provides the information needed by this person. These are only suggestions and may be adapted to individual school situations.
Product Components: The following materials are included in the package:

- Four 16mm color films
- Teacher's Handbook which explains each of the teaching skills included in the course, lesson plan suggestions, self-evaluation forms, planning supplements for course activities, and sample contracts
- Coordinator's Handbook

The following is needed in order to conduct sessions:

- 16mm sound projector
- a video tape system for every ten participants
- a 20-minute reel of video tape for each participant
- a room for microteaching

Time Span: Depending on the number of participants, the course requires five or six weeks. Activities are scheduled four or five days a week.

Conditions of Use: There are nine microteaching sessions which take 60 minutes each and must be done during school hours since pupils from the classroom are involved. Substitute teachers may be used to provide this release time. One substitute can release five teachers per day.

Provisions should be made by the district for awarding salary and/or academic credit to participating teachers.

Related Materials: None

Ordering Information:

Write: Macmillan Educational Services
c/o Association Films, Inc.
2221 South Olive Street
Los Angeles, California 90007
(415) 254-8015

Cost:

Purchase	$1,145.00
Rental (4 weeks)	175.00
Teacher's Handbook	3.80
Coordinator's Handbook	3.80

Each participant needs a copy of the Teacher's Handbook.

Title: Organizing Independent Learning: Intermediate Level (Minicourse 15)

Descriptor: A teacher training course designed to help in applying research-based independent learning skills.

Publication Date(s): 1973

Originator: Beatrice Ward and Marilyn Madsen, Far West Laboratory for Educational Research and Development (FWL)

Intended Users: Pre-service and in-service teachers who are or will be working in grades 3-8 and want to create an open environment classroom.

Purpose: Goals: The course goal for Minicourse 15 is as follows: "To develop teacher skills in the introduction, implementation, and utilization of independent learning activities for students at the intermediate level."
Objectives: There are five instructional sequences in the course. Objectives are written for each, as follows:

1. To develop teacher skill in assessing student knowledge of the meaning of independent learning and in assessing student levels of independence.
2. To develop teacher skill in specifying learning objectives for independent study contracts.
3. To build teacher skill in identifying resources, outlining learning steps, and setting deadlines.
4. To develop teacher skill in the use of reinforcers.
5. To develop teacher skill in introducing independent learning activities into the classroom.

These objectives are made more specific with a list of teacher behaviors identified for each. The following is an example which speaks to the first objective: "Assess student understanding of the concept of independent learning."

Content: The five instructional sequences are divided into three major categories:

1. Preparing to Introduce Independent Learning
2. Developing Independent Learning Contracts (includes an overview discussion)
3. Introducing Independent Learning

Usefulness Related to CBE: This course will provide teachers with a vehicle for implementing a competency-based classroom instructional program regardless of subject area or grade level.

History of Development: The minicourse went through a comprehensive field testing with use in schools in California (Fremont, Fresno, and Mill Valley) and in Rockville, Maryland.

History of Development: (Cont.)

Over 200 teachers went through the course as part of an effort to determine its success. The authors state that the results showed the course to be effective. "To determine whether they continued to use the skills, teachers were interviewed two years after completion of the main field test. One hundred percent of the teachers indicated they were still using some form of independent contracting." This use ranged from total conversion to the minicourse design to contracting in one or two subjects. The authors state further that "over ninety percent of the teachers stated that independent contracting was becoming a more important part of their instructional program every year."

Main Activities:

Each of the instructional sequences follows the same basic plan. Participants read the designated section in the Teacher's Handbook, then meet to view the instructional film. The next step is to plan a microteaching lesson to videotape and evaluate. They then reteach the lesson and evaluate again.

Feedback is provided through self-evaluation, student evaluation, and peer interaction.

Provisions for Use:

Format: The course is self-instructional. If a group of teachers are working through the course, a coordinator is essential to complete some administrative tasks.
Personnel: The coordinator's responsibility is to make arrangements for scheduling of the program. A handbook is included which provides the information needed by this person. These are only suggestions and may be adapted to individual school situations.
Product Components: The following materials are included in the package:

- Seven 16mm color films
- Teacher's Handbook which explains each of the teaching skills included in the course, lesson plan suggestions, self-evaluation forms, planning supplements for course activities, and sample contracts
- Coordinator's Handbook

The following is needed in order to conduct sessions:

- 16mm sound projector
- a video tape system for every ten participants
- a 20-minute reel of video tape for each participant
- a room for microteaching

Time Span: Depending on the number of participants, the course requires five or six weeks. Activities are scheduled four or five days a week.

Conditions of Use:

There are nine microteaching sessions which take 60 minutes each and must be done during school hours since pupils from the classroom are involved. Substitute teachers may be used to provide this release time. One

Conditions of Use: (Cont.)

substitute can release five teachers per day.

Provisions should be made by the district for awarding salary and/or academic credit to participating teachers.

Related Materials:

None

Ordering Information:

Write:
Macmillan Educational Services
c/o Association Films, Inc.
2221 South Olive Street
Los Angeles, California 90007
(415) 254-8015

Cost:

Purchase	$1,140.00
Rental (5 Weeks)	165.00
Teacher's Handbook	3.90
Coordinator's Handbook	3.90

Each participant needs a copy of the Teacher's Handbook.

Title:	Educational Development, Dissemination, and Evaluation (DD&E) Training Resources
Descriptor:	A program for training professionals in educational development, dissemination, and evaluation.
Publication Date(s):	No date given
Originator:	Far West Laboratory for Educational Research and Development (FWL)
Intended Users:	Professionals employed in educational R&D agencies, or in DD&E positions within other educational agencies, who need in-service or on-the-job training resources for themselves or for their subordinates. Graduate students in pre-service programs, administrators, media specialists, curriculum consultants, linking agents, materials resource center staff, or other educators who may need orientation to educational DD&E or specific skills in these areas.
Purpose:	This product is an individualized, competency-based professional program with a flexible curriculum in educational product and program planning, development, dissemination, and evaluation. Goals: Its primary goal is to provide users with knowledge, skills, and sensitivity specifically appropriate to effective performance at "entry-professional levels" in educational DD&E work settings. Objectives: For the modules in each of the series there are specific performance outcomes stated.
Content:	The main content areas include: Series 1 -- Planning. An Overview including Problem Definition and Specification of Outcomes; Consideration of Alternatives; Introduction to Development; Introduction to Evaluation; and Introduction to Dissemination and Marketing. Series 2 -- Information/Data Collection and Organization. Orientation to Collecting and Organizing Information and Data; Data Management; the Retrieval of Information Using Bibliographic Sources; and The Retrieval of Information Using Special Sources. Series 3 -- Communication Skills. Oral Communication; Written Instructional Materials; Technical Writing -- Informal Documents; and Technical Writing -- Formal Documents. Series 4 -- Development. Introduction to Development; Designing Educational Products; Product Engineering; Review, Tryout, and Revision; and Special Problems in Development. Series 5 -- Evaluation. Introduction to Evaluation; Measurement and Testing for Developers and Evaluators; Design of Evaluation Instruments; Planning and Implementing Evaluation; and Evaluation Problems.

Content: (Cont.)	Series 6 -- Dissemination and Marketing. Introduction to Dissemination and Marketing; and Marketing Educational Products.
Usefulness Related to CBE:	This series, or sections thereof, would be useful to districts or individuals that plan to invest considerable time and resources to the development of an educational product.
History of Development:	Information not available at this time.
Main Activities:	The DD&E training resources are primarily self-instructional. Each series consists of the set of modules listed above. Each module contains several Episodes, which contain the readings, examples, and basic instructional content of the module. Specific Episode Objectives, displayed at the beginning of each episode, state in performance terms the outcomes the student should achieve. Exercises are provided to give the student an opportunity to apply concepts and skills. Exercises are followed by model responses and explanations in the Feedback section. Review Questions are provided to check understanding of concepts, principles, and skills covered. A Summary after the last episode reviews key points and principles. Study Suggestions present new problems and questions and provide opportunity to apply, practice, and discuss the module content. References are provided for further study of specific topics. Finally, separately-bound End-of-Module Tests permit assessment of mastery of the objectives for each module.
Provisions of Use:	Format: Primarily self-instructional, but may be used as instructional resources in on-the-job , pre-service, or in-service training programs or as components of graduate training programs. Personnel: Self-instructional, but training is enhanced significantly if an instructional resource manager, familiar with the use of the DD&E materials, is available. Product Components: Twenty-three Instructional Modules, organized in six major series, but usable separately or in a variety of other combinations than the six defined series. A User Guide to Training Resources describes the purpose, structure, and objectives of each module. An Assessment System, which provides a manual and guide to the use of diagnostic, program planning, program progress assessment, and exit competence certification resources. Time Span: Individual modules require 6 to 24 hours of student work to complete, exclusive of special exercises or projects, with the majority of modules averaging from 14 to 20 hours. The entire set of six series provides the "core" for a year-long, intensive Master's - level program or its equivalent.

Conditions of Use:

The DD&E resource system was designed deliberately to fit a wide range of users and now is employed in a variety of settings ranging from use in higher education programs (community colleges, Bachelor's, Master's, and doctoral programs in the behavioral sciences, educational technology, educational R&D, and educational evaluation) to use in on-the-job training or upgrading in educational agencies.

Modules in the Planning, Information/ Data Collection and Organization, Communication Skills, Evaluation, or Dissemination and Marketing series may be of special interest to educational linking or change agents.

Although self-instructional, access to an instructional resources manager (IRM), who can aid the student in diagnosing training needs, planning and personalizing program of study, assessing progress, suggesting and reviewing specific applications projects, discussing problems and issues, etc., is highly recommended. The IRM role can be played by a work supervisor or a college instructor.

Related Materials:

- An Evalution Guidebook -- A Set of Practical Guidelines for the Educational Evaluator (See B 4.2)
- CSE Summative Evaluation Kit (See B 2.3)
- Evaluation for Program Improvement (See B 3.5)
- Evaluating A Curriculum Program: An Educator's Handbook (See B 3.2)

Ordering Information:

Prices of individual modules vary. For complete list of prices, write:

Far West Laboratory for Educational
Research and Development
ATTN: Order Department
1855 Folsom
San Francisco, California 94103

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title:	Instructional Supervision: A Criterion-Referenced Strategy #17
Descriptor:	A filmstrip-tape program for teachers explaining a consequence oriented approach to supervision.
Publication Date(s):	1969
Originator:	W. James Popham, Graduate School of Education, University of California, Los Angeles
Intended Users:	Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.
Purpose:	Goals: None stated. Objectives: The author states specifically that, at the conclusion of the program, the learner should be able to: 1. Describe the two primary functions of an instructional supervisor who uses a criterion-referenced strategy. 2. List four recommended activities to be used by supervisors in carrying out each of these functions. 3. Distinguish among descriptions of supervisory actions and/or decisions which are or are not consistent with a criterion-referenced strategy.
Content:	The program identifies supervisors in schools and defines their roles. A criterion-referenced strategy for these supervisory roles is presented which consists of two functions: (1) help teachers select more defensible objectives; and (2) help teachers achieve their objectives.
Usefulness Related to CBE:	Teachers involved in this program should become more familiar with a "criterion-referenced strategy" where the focus is on the ends of instruction (consequences) rather than on the means or how it is conducted.
History of Development:	The program was field tested with 150 participants at a supervision and curriculum development conference. Pre- and posttest results of the three-part examination follow: Part I, 5% correct on pretest, 92% correct on posttest; Part II, 4% correct on pretest, 88% correct on posttest; and Part III, 52% correct on pretest, 84% correct on posttest.
Main Activities:	Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs. In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses, the filmstrip may be used as an adjunct to

Main Activities: (Cont.)

courses in instruction.

Regardless of the user group, each participant is required to take a three-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of curriculum.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answersheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. Items on the examination should be used for discussion as follow-up activity.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Perceived Purpose #6 (See C 3.5)
- Systematic Instructional Decision-Making #2 (See C 3.6)
- Appropriate Practice #5 (See C 3.8)
- Discipline in the Classroom #15 (See C 3.9)
- Individualizing Instruction #21 (See C 3.10)
- Knowledge of Results #12 (See C 3.15)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Knowledge of Results #12

Descriptor: A filmstrip-tape program for teachers presenting guidelines for providing students with immediate feedback regarding their performance.

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: According to the author the principal objective of this program is that "when presented with fictitious descriptions of teachers in action the learner will be able to identify which of them is using the knowledge of results principle." He goes on to say that learners also should "be able to generate descriptions of diverse methods of providing knowledge of results."

Content: The program discusses four methods of providing immediate feedback: (1) a simple "right" or "wrong"; (2) a simple statement of the correct response; (3) "right" or "wrong" plus elaboration; and (4) the correct response plus elaboration. Examples are given of classroom reinforcement and non-reinforcement.

Usefulness Related to CBE: Teachers involved in this program better understand and consequently organize methods they can use for providing adequate feedback during the instructional sequence.

History of Development: The program was field tested on two occasions with secondary education credential candidates at UCLA. Results of testing presented in the instructor's manual follow: Group I: pretest 42% correct and posttest 88% correct; and Group II: pretest 44% correct and posttest 95% correct.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a 10-item examination which may be used as a

Main Activities: (Cont.)

pretest and/or a posttest. The examination is based on the measurable objectives for the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

The program advocates measurable skills which can be used to achieve identifiable competencies. Discussion of the examination items should be particularly helpful as follow-up.

Related Materials:

Other VIMCET products which treat the area of instruction:

- Perceived Purpose #6 (See C 3.5)
- Systematic Instructional Decision-Making #2 (See C 3.6)
- Appropriate Practice #5 (See C 3.8)
- Discipline in the Classroom #15 (See C 3.9)
- Individualizing Instruction #21 (See C 3.10)
- Instructional Supervision: A Criterion-Referenced Strategy #17 (See C 3.14)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $18.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title:	Curriculum and Instruction: Planning Improvement
Descriptor:	A training package to assist school personnel in identification of suitable and feasible program improvements.

*This product is cross-referenced in this sourcebook. See B 3.1 for a complete description.

Title: Instructional Tactics for Affective Objectives #24

Descriptor: A filmstrip-tape program for teachers which describes three tactics -- modeling, contiguity, and reinforcement -- for the promotion of affective objectives.

Publication Date(s): 1971

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: The author states that specifically, at the close of the program, the viewer will be able to:

1. Describe the general nature of each of the following instructional tactics: modeling, contiguity, and reinforcement.
2. Indicate which, if any, of these three instructional tactics are being employed when presented with fictitious descriptions of teachers attempting to accomplish affective objectives.

Content: The discussion of the instructional tactics includes several specific examples of affective objectives as well as activities in order to clarify the function of each tactic.

Usefulness Related to CBE: Teachers involved in this program should begin to feel more comfortable with the difficult task of teaching for affective changes in learner behavior. The program advocates measurable skills which can be used to achieve identifiable competencies.

History of Development: This program was field tested with 167 secondary education candidates at UCLA. A random selection of 100 examination papers showed the following results: Part I: pretest 32% and posttest 93%; Part II: pretest 61% and posttest 86%.

Main Activities: Learners view a filmstrip. However, follow-up activities depend on individual group needs.

In an in-service, teachers and administrators may discuss the program in an after school session. For pre-service courses the filmstrip may be used as an adjunct to courses in instruction.

Regardless of the user group, each participant is required to take a two-part examination which may be used as a

Main Activities: (Cont.)	pretest and/or a posttest. Each section is based on one of the measurable objectives for the program.
Provisions for Use:	Format: Used best to supplement a course or workshop focusing on the area of instruction. Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination. Product Components: The program includes: o an illustrated filmstrip, typically 30-40 frames o accompanying audio-tape (reel-to-reel or cassette) o instructor's manual suggesting techniques for using the program. It also includes a copy of the answer sheet and examination which may be duplicated locally. Time Span: The audio-tape narration is approximately 30 minutes in length.
Conditions of Use:	None
Related Materials:	None.
Ordering Information:	Write: Vimcet Associates, Inc. P.O. Box 24714 Los Angeles, California 90024 Cost: Filmstrip-tape program $18.00 Specify whether cassette or reel-to-reel tapes are desired. Order by title and program number. Two-week preview available for any two filmstrip programs.

Title: Teaching Units and Lesson Plans #13

Descriptor: A filmstrip-tape program for teachers which provides an examination of key ingredients of effective written instructional plans.

Publication Date(s): 1969

Originator: W. James Popham, Graduate School of Education, University of California, Los Angeles.

Intended Users: Prospective as well as experienced teachers who are concerned with improving their teaching proficiency.

Purpose: Goals: None stated.
Objectives: It is stated specifically that, at the end of the program, the learner will be able to:

1. Correctly use the terminology associated with lesson and unit planning by matching key terms with different paraphrase definitions of those terms.
2. List the recommended elements which should be included in teaching units.
3. List the recommended elements which should be included in lesson plans.
4. Decide whether given operations should be carried out in developing (a) lesson plans, (b) teaching units, (c) both, or (d) neither.

Content: The recommended elements in a teaching unit are: (1) precise instructional objectives; (2) pretest; (3) day-by-day activities; (4) criterion check; (5) posttest; (6) resources; and (7) back-up lesson. The recommended elements discussed for a lesson plan are: (1) precise instructional objectives; (2) learner activities; (3) teacher activities; (4) time estimates; and (5) assignments (if any).

Usefulness Related to CBE: Teachers involved in this program should begin to feel more comfortable in their approach to the instructional planning process beginning with specific instructional objectives. The measurable objectives advocated in the program can be used to achieve identifiable competencies.

History of Development: The program was tried with small groups as well as one large group with over 100 secondary teaching credential candidates at UCLA. Pre- and posttest results were significant, as shown by quantitative data in the instructor's manual.

Main Activities: Learners view a filmstrip and make responses on an answer sheet. However, follow-up activities depend on individual group needs.

Main Activities: (Cont.)

In an in-service, teachers and administrators may discuss the program in an after school session. For preservice courses, the filmstrip may be used as an adjunct to courses in curriculum.

Regardless of the user group, each participant is required to take the four-part examination which may be used as a pretest and/or a posttest. Each section is based on one of the four objectives of the program.

Provisions for Use:

Format: Used best to supplement a course or workshop focusing on the area of instruction.
Personnel: An indeterminate number may be accommodated by this filmstrip. While a coordinator is not essential, one person in the group needs to be responsible for setting up the filmstrip and administering the examination.
Product Components: The program includes:

- an illustrated filmstrip, typically 30-40 frames
- accompanying audio-tape (reel-to-reel or cassette)
- instructor's manual suggesting techniques for using the program. Also includes a copy of the answer sheet and examination which may be duplicated locally.

Time Span: The audio-tape narration is approximately 30 minutes in length.

Conditions of Use:

It is recommended that learners actually should prepare short lesson plans (which they intend to use) employing the elements discussed.

Related Materials:

Other VIMCET programs treating this area of instruction:

- Writing Tests Which Measure Objectives #29 (See B 3.8)
- Analyzing Learning Outcomes #11 (See A 3.4)
- Instructional Tactics for Affective Objectives #24 (See C 3.17)

Ordering Information:

Write: Vimcet Associates, Inc.
P.O. Box 24714
Los Angeles, California 90024

Cost: Filmstrip-tape program $13.00

Specify whether cassette or reel-to-reel tapes are desired.

Order by title and program number.

Two-week preview available for any two filmstrip programs.

Title: Packages for Autonomous Learning (PAL) System

Descriptor: A self-instructional system for teachers wanting to learn how to plan, write, and evaluate learning activities or instructional packages (LAP's).

Publication Date(s): 1973 (Revised Edition)

Originator: Clover Park School District, Tacoma, Washington

Intended Users: Teachers wishing to learn skills in developing learning activity packages for classroom use.

Purpose: Goals: The following are goals of the PAL System:

1. Using a systems approach, construct and evaluate one or more LAP's in the subject matter of your own choice.
2. To acquaint practitioners with resources that are available to assist them in adding many more LAP's to the one or two that they have already painstakingly developed.

Objectives: The developers write that after successful completion of the PAL system each teacher will be able to:

1. Perform a task analysis of an area of instruction which falls within the participant's teaching responsibility.
2. Select those tasks which may be appropriately taught using one or more learning activity packages.
3. Write measurable performance objectives for selected learning tasks; develop and diagram an instructional strategy aimed at one or more particular learning tasks.
4. Write a criterion-referenced test for one or more performance objectives; sequence the products discussed above into a format which is referred to as a LAP (i.e., develop an LAP).
5. Evaluate a teacher developed LAP and modify it based upon feedback; write a student performance contract.
6. Use the following resources to assist in the development of LAP's beyond the workshop:
    - The Instructional Objectives Exchange
    - Computer Based Resource Units
    - The State of Washington Learning Activity Package System
    - The ERIC and CIJE Clearinghouse on Educational Media and Technology.

Content: There are nine learning activity packages in the PAL system. Developers contend that by learning through LAP's, teachers acquire first hand knowledge of what

Content: (Cont.)

a LAP is prior to developing their own LAP's. In preparing LAP's, learners become acquainted with the following:

- instructional needs assessment
- task analysis
- performance objectives
- objectives in the cognitive, affective, and psychomotor domains
- criterion-referenced tests
- instructional strategies
- evaluation of LAP's

Usefulness Related to CBE:

The system's usefulness is stated by the developers as follows: "A learning activity package, sometimes referred to as a LAP, module, UNIPAC, etc., is merely a systematically developed and sequenced booklet which guides the learner to the successful achievement of predetermined objectives in the most effective and efficient possible way." Teachers will be able to develop instructional materials for use in competency-based teaching.

History of Development:

There is no information available regarding the field testing of these materials.

Main Activities:

The activities are sequenced so that learners:

I. Perform a task analysis in an instructional area of their choice.
II. Write one or more performance objectives for the selected task(s).
III. Prepare a criterion-referenced test for each of the objectives; develop a matrix to show relationship of test items to performance objectives.
IV. Construct an instructional strategy for the LAP.
V. Develop and put together components of a LAP.
VI. Evaluate and revise LAP based upon feedback.
VII. Develop a student performance contract.

Provisions for Use:

Format: The PAL system is designed for use in workshop sessions. There are two kinds of sessions: resource utilization sessions in which learners are acquainted with resources, and laboratory sessions which allow for questions, practice exercises, posttests, and problem discussion.

Personnel: A qualified course instructor or workshop director is required. This person sets up workshop sessions and provides materials and resources for participants.

Product Components:

- The PAL System prospectus describing activities and the system (22 pp.)
- LAP #1: covers instructional needs assessment, task analysis, tasks appropriately taught through LAP's, and entry behavior (27 pp.)
- LAP #2: contains an overview of performance objectives (48 pp.)

Provisions for Use: (Cont.)

- LAP #3: provides an in-depth study of objectives in the cognitive domain (32 pp.)
- LAP #4: provides an in-depth study of objectives in the affective and psychomotor domains (24 pp.)
- LAP #5: covers writing criterion-referenced tests (27 pp.)
- LAP #6: covers instructional strategies (38 pp.)
- LAP #7: discusses LAP components and methods of sequencing (28 pp.)
- LAP #8: treats evaluation of a package (28 pp.)
- LAP #9: describes writing student performance contracts (41 pp.)
- The PAL System Illustrative Products Booklet: contains sample learning lattices, instructional strategies, packages, etc. (170 pp.)

There may be some special equipment needs in resource utilization sessions, e.g., microfiche reader/printer. Time Span: Several months are required for completion of all sessions.

Conditions of Use:

There is no specialized prior knowledge necessary for participants to develop course products.

Related Materials:

There is a second portion of the PAL system:

- Planning, Writing and Evaluating Instructional Systems

Ordering Information:

Write: I.M. Warren
Clover Park School District No. 400
5214 Steelacoom Blvd. S.W.
Tacoma, Washington 98499

Cost: Information not available.

Title: Individualizing Instruction: Materials and Classroom Procedures

Descriptor: A textbook showing teachers techniques of individualized instruction.

Publication Date(s): 1972, 279 pp.

Originator: Helen Davis Dell, Science Research Associates (SRA)

Intended Users: Prospective and experienced classroom teachers who wish to improve their ability to provide individualized instruction.

Purpose: The purpose of this text is to assist the users in developing their own materials and procedures for individualizing instruction. The author states that much existing material about individualized instruction "is limited to one or two procedures, the complete concept of individualization is seldom presented." The author's intent in this text is to help teachers "develop techniques furthering every aspect of individualization."

Goals: Goals are not presented.

Objectives: Each chapter in the text contains a statement of the objectives intended for the reader. The following example is from the introductory chapter. When you have completed this chapter you should be able to:

- List the five components of individualized instruction.
- List the four purposes of an instructional objective.
- List the roles a teacher must assume in an individualized classroom. State the difference between a classroom that allows for independent learning and one that allows for both independent and individualized learning.
- Present an argument for an individualized classroom.

Content: The content of the text is arranged into nine chapters:

1. Introduction
2. Writing Instructional Objectives
3. Preparing Learning Guides
4. Evaluating Student Progress
5. Classroom Organization
6. Teacher-Student Interaction in the Classroom
7. Recordkeeping
8. Developing a Student-Managed Classroom
9. Assessing the Extent of Individualization in a Classroom

Two appendices contain:

A. Posttests for material covered in each chapter
B. Notes to administrators and supervisors

Usefulness Related to CBE:	This text is a relatively inexpensive way to provide self-instructional experiences to classroom teachers to help them promote individualized instruction, a useful tool for teachers in a CBE program.
History of Development:	No information pertaining to the field testing of this text is given.
Main Activities:	Users of this text simply may read it, or they may study the objectives presented at the beginning of each chapter, take the pretest (also at the beginning of each chapter), complete several self-check items spread throughout each chapter, and take the appropriate posttest for the chapter. Topics for Discussion, Discussion Questions, and other practice exercises are included in each chapter. These require instructor or supervisor evaluation. Bibliographies at the end of each chapter indicate sources of further information.
Provisions for Use:	<ins>Format</ins>: The format of the text is mostly self-instructional, though certain parts of the text may be used for group discussion or require instructor or supervisor evaluation. <ins>Personnel</ins>: Though not directly stated, it appears that the text is designed to accommodate one user. If several persons are using the text, it is probably wise to provide for an instructor. <ins>Product Components</ins>: The text is designed for use by itself. <ins>Time Span</ins>: No indication of the optimum time span for the use of the product is indicated.
Conditions of Use:	No restraints on the use of this text are indicated.
Related Materials:	None
Ordering Information:	Write: Science Research Associates, Inc. Subsidiaries of IBM College Division 1540 Page Mill Road Palo Alto, California 94304 (415) 493-4700 Cost: $3.96 (Order No. 13-1490)

Title: Design and Development of Curricular Materials

Descriptor: A pre-service self-instructional program in two volumes teaching curriculum design procedures based on the structured-curriculum model.

Publication Date(s): 1976

Originator: Doris T. Gow (ed.), Learning Research and Development Center, University of Pittsburgh

Intended Users: The program is designed for use in post-baccalaureate or upper division university level courses.

Purpose: Goals: Developers point to a need to relieve the shortage of personnel trained in innovative design procedures brought on by the movement toward individualized curricula. Objectives: Each of the twelve self-instructional units includes terminal objectives, prerequisite objectives, and a hierarchy of objectives.

Content: The components of a self-instructional unit are listed and defined as follows:

- o Rationale -- explains why the objectives in the unit are included in a curriculum design course.
- o Terminal Objectives -- state in behaviorial terms what the student should be able to do after instruction.
- o Prerequisite Objectives -- usually stated in a previous unit, these are required for mastery of the unit.
- o Hierarchy of Objectives -- charts the instructional sequence to show the relationship of objectives by level of difficulty.
- o Study Guides -- one or more found in each unit; they list objectives for a section of the unit, list student tasks (learning experiences) and sources for these tasks coded to objectives (extensive readings).
- o Overview -- provides one or more of the following: content summary, information otherwise difficult to obtain, and design points of view.
- o Bibliography -- lists sources for the unit and further work as required by each student.
- o References -- contain all sources used in the unit overview.
- o Posttest -- either an objective test (answer key provided) or a performance test (product to be evaluated).
- o Pretest -- given for diagnostic purposes.

Usefulness Related to CBE: Specialized procedures have been found useful in research and development centers to design and develop individualized curricula. This kind of curriculum is the best for fully effecting competency based education programs.

History of Development: The model presented in this program was used to train curriculum doctoral students in a pilot project of the LRDC and the School of Education at the University of Pittsburgh. Developers go on to state that the training materials in these two volumes were "revised on the basis of this pilot test and of later testing with more than 200 students in the External Studies Program of the University of Pittsburgh." No quantitative data is available to reflect the outcomes of this field testing.

Main Activities: In each unit there are one or more study guides which instruct the student in reading assignments along with follow-up questions or exercises in application to further understanding of what is read. Occasionally, the student is directed toward producing something, e.g., card file to be used on-the-job. Students will take posttests at the end of each unit.

Provisions for Use: Format: The material in this program is self-instructional, but is to be used in conjunction with a university-level course.

Personnel. The number of participants is not limited, however, a course instructor is essential to clarify any points of confusion and assist students in moving through the text.

Product Components: There are two volumes in this program:

1. Self-Instructional Text.
2. Instructional Design Articles.

Time Span: There is no indication of time needed to complete the program. It is assumed that a minimum of one quarter or semester would be necessary.

Conditions of Use: Students participating in this program should have a background in education, psychology, and an academic discipline.

Related Materials: None

Ordering Information: Write:

Center for International Studies
Publications Section
G-6 Mervis Hall
University of Pittsburgh
Pittsburgh, Pennsylvania 15260

Cost:

$19.95 for 2-volume set
$14.95 for Volume 1 only

Title: Basic Principles of Curriculum and Instruction

Descriptor: A book providing explanatory information on the rationale for curriculum and instruction in an educational setting.

Publication Date(s): 1975 (33rd Printing), 128 pp.

Originator: Ralph W. Tyler, Director Emeritus, Center for Advanced Study in the Behavioral Sciences, former Professor of Education and Dean, Division of Social Sciences, The University of Chicago

Intended Users: Because it was originally published as a syllabus for an education course, it could be assumed that the book is primarily for use in pre-service courses.

Purpose: The author states that the "book outlines one way of viewing an instructional program as a functioning instrument of education."

The rationale for the book starts with four questions to be answered in curriculum development:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?

These questions are not answered in the book; suggested methods are provided instead.

Content: There are five chapters in the book. The first four treat the questions as shown above to develop a rationale for study. In the last chapter, discussion is given to staff involvement in curriculum building.

Usefulness Related to CBE: This treatise provides considerable information useful to introducing basic concepts and principles inherent to CBE.

Related Materials: None

Ordering Information: Write: The University of Chicago Press
5801 Ellis Avenue
Chicago, Illinois 60637
(312) 753-1234

Cost: $2.45

Title: Guidelines for Developing A Competency-Based In-service Teacher Education Program

Descriptor: A book of guidelines to assist school districts in planning a transition from traditional to competency-based in-service.

Publication Date(s): August 1974, 64 pp. + appen.

Originator: Gordon Lawrence and Charles Branch, Florida Educational Research and Development Program

Intended Users: Anyone who is involved in attempts to convert a traditional in-service program to a competency-based program.

Purpose: The authors state that the main purpose of the project was "to develop and field test procedures and training materials that the county school systems in Florida could use in developing their own programs of competency-based in-service education for teachers." The book reflects the experiences of this project.

Content: Major sections of the book are:

1. A Perspective on the Competency Approach -- defines competencies and explains how they are derived, their focus on teacher education programs, how they are assessed, characteristics, and their adaptation to in-service teacher education.
2. Changing Responsibilities in the In-service Program -- describes changes involved in the transition including program elements, certificate extension units, program management, and the roles of the supervisor/in-service director, the teacher, the school administrator, university/college personnel, and State Department of Education.
3. Practical Arguments for Teacher Management of CBITE -- describes problems in management and functions of a peer panel.
4. Guidelines for Developing a Competency-Based In-service Program -- outlines in detail a four-phase development including organization, orientation, implementation, and planning a full CBITE program.
5. Concluding Remarks.

There are two appendices. One lists Florida's modules on generic teaching competencies, and the other provides an inventory of concepts about middle school teaching.

Usefulness Related to CBE:	The type of program described in this book allows for teachers' competencies to be demonstrated rather than inferred from records.	
Related Materials:	o Patterns of Effective In-service Education, Gordon Lawrence et al. (Available from source listed below)	
Ordering Information:	Write:	Panhandle Area Educational Cooperative P.O. Drawer 190 Chipley, Florida 32428
	Cost:	$2.50

Title:	Competency Tests and Graduation Requirements
Descriptor:	A monograph for administrators describing background information and the current movement toward competency tests as graduation requirements.
Publication Date(s):	1976, 69 pp. + appen.
Originator:	James P. Clark, Research Associate, and Scott D. Thompson, Associate Secretary for Research, National Association of Secondary School Principals (NASSP)
Intended Users:	School and district administrators.
Purpose:	The authors state that the purpose of this monograph "is to explore the use of a variety of specific competency tests that measure skill achievement required for high school graduation." This has become a growing concern as more high school graduates are found to be deficient in basic skills.
Content:	A brief discussion is given to defining competency tests and their relative position at the state and district levels. Samples of competency tests in current use are presented in the areas of mathematics, reading, writing, democratic process, art, music, and money management. There are two appendices: one lists, by state, the schools using competency tests; the other, legislative and state board rulings concerning competency tests.
Usefulness Related to CBE:	Anyone interested in current, specific information regarding the role of competency testing for graduation requirements would find this document useful.
Related Materials:	None
Ordering Information:	Write: The National Association of Secondary School Principals 1904 Association Drive Reston, Virginia 22091 Cost: $3.00 (must be prepaid if order is less than four copies)

Instructional Management Systems

An efficient, reliable instructional management and recordkeeping system is essential to CBE program operation. Data is required relative to each student's progress toward or attainment of program outcomes. An efficient system records and maintains a maximally manageable amount of data in a form that is accessible and easily interpreted. Such a system facilitates program planning, instructional management, and school-community cooperation, as it permits:

1. appropriate placement of students in courses and programs;
2. remediation and individualization of instruction for students;
3. program revisions based on identified weaknesses;
4. comparisons among instructional programs or instructional sequences; and
5. demonstrating individual student, class, school, or district accomplishment.

Data-Gathering Tasks

In a comprehensive CBE program, vast amounts of student performance data potentially could be accumulated. In order to avoid overburdening the program with recordkeeping tasks, not all data need be reported. For example, data that the classroom teacher uses to make remediation or supplementary instruction decisions, based on specific enabling or en route outcomes, need not be transmitted beyond the classroom recordkeeping system. In most cases, the reported scores need only be unit tests scores (coded or referenced to unit outcomes). Classroom teachers should not be burdened with too-frequent data recording and reporting, and only data critical for decision-making and progress-reporting purposes are necessary.

Record Sheets and Reports

Recordkeeping devices may vary widely in format and content. Individual class record sheets for any tests should allow minimally for recording each student's performance in relation to desired level of performance on each outcome. Record sheets that show combined class or school data should array that data in a manner that is easily interpretable by a variety of interested audiences. Reports that are issued from data also should be easily interpretable and should include directions or guidelines for interpreting the data in terms of program outcome attainment. For maximum utility, reports designed to facilitate program planning and instructional management decisions should be issued at predetermined intervals during the school year as well as at the end of the year. Reports designed to credit educational accomplishments may be issued as appropriate.

Analysis of Records and Reports

Data regarding student performance on outcomes are indispensable tools in informed decision making. Analysis of individual student performances allows accurate program placement, individualization or remediation, and meaningful progress reporting (e.g., "John has mastered multiplication but is not yet able to solve word problems using that skill," rather than "John needs some help in math"). Analysis of class or school data permits well-informed decisions relative to instructional program selection and revision. For example, if a disproportionate number of students fail to attain a specific outcome, a purposeful investigation can be undertaken of the outcome itself, the instructional sequence or procedures, and the test item that measures that outcome. Subsequently, revision in the weak area can be effected. Class or school performance data also can be used to determine the effectiveness of competing instructional sequences or programs, through a check of the number of students achieving the outcome and the amount of instructional time required.

Performance data is useful in community-school cooperation. Letters, briefs, reports, or meetings explaining educational goals and progress toward achievement of those goals can be effective in gaining the understanding and support of the community.

In this section of the CBE Sourcebook, resources and materials are described which will aid in the selection and development of instructional MANAGEMENT and recordkeeping systems:

D 1 Available Materials -- available manual or computer-assisted management systems that are either program specific or program general.

D 2 Selection Procedures -- products which assist the user in making informed selections from available management systems.

D 3 Developmental Instructions -- products that assist the user in designing and revising manual or computer-assisted management systems.

D 4 References -- references which provide information related to reporting pupil progress and assessing instructional management and recordkeeping system effectiveness.

Title: Evaluating Instructional Systems: PLAN, IGE, IPI (EPIE Educational Product Report: An In-Depth Report #58)

Descriptor: An assessment of three comparable, well-developed systems that stress individualized instruction.

Publication Date(s): 1974, 64 pp.

Originator: Educational Products Information Exchange (EPIE) Institute

Intended Users: This report is directed to school personnel who wish to consider the use of individualized instruction systems for their school. It also can be used to provide a comprehensive overview of the three most widely publicized programs.

Purpóse/ Content: This EPIE study was undertaken because of increased interest in individualized instruction and because individualized instructional systems are now available. The purpose of the report is to discuss three representative individualized instruction systems. The authors characterize this report as a limited "first-cut assessment," which focuses upon:

- principles characteristic of each system
- materials and organization of materials in the system
- implementation of each system in schools
- research and evaluation data on each system.

Three systems are assessed:

1. Program for Learning in Accordance with Needs (PLAN)
2. Individually Guided Education (IGE)
3. Individually Prescribed Instruction (IPI).

The report describes the development of each system, how the system works, and the design constructs of the system. Research and evaluation data about the system are provided, along with an "Overall Assessment" of each system.

An EPIElogue compares strengths and weaknesses of each system, as well as structural similarities and differences among PLAN, IGE, and IPI.

Usefulness Related to CBE: The three competency-based instructional systems assessed in the EPIE Report are model systems which feature individualized instruction. The purchase of one of these systems is an alternative to designing one's own competency-based programs. Therefore, the in-depth analytical descriptions should be particularly useful to educators who are either exploring potential systems or designing their own.

History of Development: Information about the history of development is not available.

Related Materials: A description of the IGE system has been included in this Sourcebook (See D 1.4).

Ordering Information: Write: EPIE Institute
463 West Street
New York, New York 10014

Cost: EPIE members $ 5.00
non-members 10.00
(Discounts are available for quantity purchases)

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title: System for Objectives-Based Assessment Reading (SOBAR)

Descriptor: An objectives-based system to measure reading achievement for K-12 students. Part of a mastery testing program in reading and mathematics.

Publication Date(s): 1975 (Materials for grades 10-12 will be available in late 1976)

Originator: Rodney Skager, SOBAR Project Director, Center for the Study of Evaluation (CSE), UCLA Graduate School of Education, Los Angeles, California 90024

Intended Users: K-12 students in reading and school teachers and administrators who make decisions about resource allocation, classroom management, curriculum planning, and instructional program evaluation in the area of reading.

Purpose/ Content: SOBAR is designed to help identify students' specific weaknesses and strengths in reading skills through the development of custom-made objectives-based tests. Students are pretested and posttested on chosen objectives, and results may be used both in the evaluation of individual performance and in the planning and evaluation of instructional programs.

Presently, 162 objectives are listed for grades K-2 and 140 for grades 3-9. The number of objectives for grades 10-12 is at present unavailable.

In the first step for a custom-made test, a school district selects for each testing period 10-40 objectives from the catalogues of objectives at each grade level. Then the test is constructed by the publisher, containing three items for each objective. The publisher also prepares test booklets and instructions for test administration, and delivers these to the school. As an optional service, test scoring can be provided by the publisher.

A second type of test, the "catalog test," is available. This test differs from the custom-made test in that the objectives for which it is testing have been pre-selected for various grade levels by curriculum experts.

For both types of tests, the student must correctly complete all three items for an objective in order to demonstrate mastery.

The SOBAR system consists of a User's Guide, student test booklets, answer sheets, a catalog of objectives,

Purpose/ Content: (Cont.) a Guide to mastery testing, and an Examiner's Manual.

Usefulness Related to CBE: The collection is useful in a CBE context in two ways. First, it provides sets of objectives and test items for reading skills for persons who wish to choose from existing collections. Second, it provides a management system for keeping records of student and class progress towards objective attainment.

History of Development: SOBAR materials were developed by curriculum experts who analyzed the reading domain in order to determine the set of skills and competencies that any reading program might teach. At the same time pools of assessment materials were developed for each objective, enabling the development of tests consistent with the objectives.

Materials thus developed were reviewed by reading specialists and measurement experts to determine whether the collection of objectives was complete, and to determine whether items in the assessment pools exhibited content validity.

SOBAR was used across the country in 1974 with students in grades 3-8. No data describing field testing or its results is available at the present time.

Related Materials: None

Ordering Information: Information about ordering SOBAR materials is available from:

Ms. Leigh Van Ausdall
Science Research Associates
259 E. Erie Street
Chicago, Illinois 60611

The area representative in Oregon is:

Neil Schroeder
15200 S.W. 133rd
Tigard, Oregon 97223
(503) 639-4982

An SRA Catalog (available from persons listed above) describes costs of SOBAR materials.

Title:	TRACER
Descriptor:	A computer program designed to assist the teacher with recordkeeping.
Publication Date(s):	1974
Originator:	Educators' Alliance
Intended Users:	School districts having programs based on measurable objectives. Teachers and students are the users of results of TRACER print-outs.
Purpose/ Content:	TRACER is a management tool designed to assist teachers in keeping records, scoring tests, and providing other feedback on student progress and performance. To use TRACER, the curriculum is broken down into programs consisting of several units each. Each unit covers one or more objectives. The program of studies for each student consists of a sequence of units. One of the advantages of the TRACER system is that it can easily handle individualization, in which each student's program consists of different units or groups of students have different programs. With TRACER, the student may have the choice of several approaches to the mastery of the objectives of the unit. These approaches are called "Learning Guides," and each consists of a statement of unit objectives with suggested learning activities and resources. A pretest and posttest on the objectives is included for each unit. TRACER also includes placement and achievement tests. All of the tests are scored by TRACER. Each day the teacher provides specific information for the program, and receives a print-out the next morning.
Usefulness Related to CBE:	TRACER is a computer program that could be used to perform the recordkeeping and management functions of a CBE program. It lends itself readily to individualized instruction because it can track students individually and because it frees the teacher to spend more time with students.
History of Development:	No information on the history of development is presently available.
Related Materials:	None

Ordering Information:	Order and Cost Information about TRACER is available from: Educator's Alliance 1060 Sierra Drive Menlo Park, California 94025

Title: Individually Guided Education (Multiunit School Implementation)

Descriptor: An alternative form of public schooling which focuses on student development through individualized curriculum and instruction.

Publication Date(s): Plans and materials for implementing Individually Guided Education (IGE) systems have been developed and revised continuously since 1969.

Originator: Wisconsin Research and Development Center for Cognitive Learning

Intended Users: A comprehensive program intended for use by a total elementary school staff. Facilitators from teacher education institutions, state education agencies, intermediate education agencies, and local education agencies are trained in IGE concepts and practices.

Purpose/ Content: IGE is a comprehensive system of schooling designed to produce higher educational achievements through providing for rate of learning, learning style, and other characteristic differences among students. Every element and phase in the development, refinement, and implementation of the system is designed to create conditions for effective educational planning, teaching, and learning.

In IGE, the broad range of phenomena ordinarily associated with education has been organized into seven components:

1. Multiunit School (MUS) -- The MUS is the organizational structure designed to enable educational decision making, open communication, and accountability to occur at appropriate levels of the school system.
2. Instructional Programming Model (IPM) -- The IPM provides a framework for teaching children according to their own rates and styles of learning, levels of motivation, and other characteristics, while taking into account the general educational objectives of the school.
3. Curriculum Materials and Instructional Procedures -- The Wisconsin Research and Development Center has developed individualized curriculum materials and instructional procedures which are compatible with the IPM.
4. Model for Measurement and Evaluation -- The model includes assessment of each child's readiness, progress, and final achievement by the use of criterion-referenced tests and other assessment procedures.

Purpose/ Content: (Cont.)

5. Program of Home-School-Community Relations -- The students, staff, parents, and citizens who make up the IGE school community must mutually understand each other's resources and expectations in order to create and maintain an optimum learning situation.
6. Facilitative Environments -- Relationships established to maintain and strengthen IGE are developed among local, intermediate, and state education agencies as well as state teacher education institutions.
7. Research and Development -- If IGE is to remain viable, it must be capable of incorporating change. Continued research and development generate knowledge and programs related to curriculum, instruction, and administration which can be infused into the IGE system.

Usefulness Related to CBE:

Performance objectives have been identified for schools to follow in implementing the IGE and minimal criteria in order to be considered an IGE school. The basic tenets of individualized instruction presented, however, are flexible enough to be adapted to any local district needs.

History of Development:

Since 1967, the Wisconsin Research and Development Center has worked cooperatively with educational agencies in developing the IGE system. The development of IGE has come about through an iterative process of conducting research to discover more about how children learn; developing improved instructional strategies, processes, and materials for school administrators, teachers, and children; and offering assistance to educators and citizens which will help transfer the outcomes of research and development into practice. After a developmental need for IGE was recognized, the following process was applied to the development of each aspect of the product: plan, develop, conduct expert review, tryout, revise, and publish. At all stages of development, the substance and form of the product were evaluated.

In 1969-70, only 50 elementary schools, all in Wisconsin, were implementing IGE. By 1974-75, approximately 2,500 schools in 38 states had made the complex change to this new educational system.

The rate of IGE implementation over the past seven years has been enhanced by funds from the U.S. Office of Education (USOE) and the National Institute of Education (NIE), and the commitment to IGE by thousands of local education agencies, state education agencies, and teacher education personnel in 35 states. In addition, two recent events have significantly influenced the diffusion of IGE. One was the funding of the University of Wisconsin/Sears, Roebuck Foundation. Funding was for preparing materials

Ordering Information:

Write: Wisconsin Research and Development Center for Cognitive Learning
1025 West Johnson Street
Madison, Wisconsin 53706

Cost:

16mm film: "Think Kids"	$125.00
Audiovisual package (set of 5 filmstrips each accompanied with an audiotape cassette)	75.00
Print materials package (guidelines for implementation, protypic agenda, unit school directory, workshop simulation and current annual report)	50.00

This description was adapted from Catalog of NIE Education Products.

Title: Student-Centered Instructional System (SCIS): Mathematics

Descriptor: An objectives-based instructional system for seventh grade mathematics.

Publication Date(s): 1975, 13 components, 35-40 pp. each

Originator: Myron Goff and Judy O'Steen, Developmental Research School, Florida State University

Intended Users: Seventh grade students who have a basic understanding of whole number arithmetic.

Purpose/ Content: The purpose of the SCIS mathematics materials is to provide a complete instructional system utilizing performance objectives in seventh grade mathematics. Materials are designed for independent study, but also may be used by groups of students.

The SCIS mathematics materials contain 13 main components, each of which is subdivided into many objectives. The components are:

1. finite mathematical systems
2. the system of whole numbers
3. number theory
4. geometric figures
5. fractions: the system of non-negative rational numbers
6. decimals
7. percents
8. measures of geometric figures
9. the system of integers
10. graphing in a coordinate plane
11. congruences, perpendiculars, triangles, quadrilaterals
12. measurement and error
13. applied problems

A pretest, tests on objectives, review tests, and a posttest accompany each component. In order to implement these materials, only certain commonly available and inexpensive materials are required, such as rulers and scissors.

A recordkeeping system for the SCIS mathematics materials has been designed that is based on the use of student data sheets. The data sheets maintain the following records:

o date student begins studying an objective

Purpose/ Content: (Cont.)

- date student takes criterion-referenced test on an objective
- whether student passes the objective
- date of second (and third) testing, if required
- whether student passes second (or third) testing

Another feature of this system is its grading system which is based on an "expectation level" for each student. The expectation level determines how many objectives the student may be expected to achieve. Posttest scores and the number of objectives actually completed by the student (compared with that student's expectation level) yield the student's grade.

Usefulness Related to CBE:

This system readily lends itself to installation in a CBE context.

History of Development:

Developers report that the SCIS mathematics system has been under development for six years, during which time modifications "based on an evaluation derived from classroom operation or data collecting analyzing procedure" have been made.

Objectives for the program are reported by developers "to have been written based on instructional objectives common to most seventh grade mathematics courses of study. They have been repeatedly revised based on student comments, computer analyses, and instructor perceptions."

"Several original methods and procedures have been incorporated into these materials. The approaches to union and intersection of sets, percents, and the consecutive numbering of both developmental exercises and practice exercises within an objective are all unique to these materials."

Related Materials:

None

Ordering Information:

Write: Robert H. Reiser
Center for Educational Design
The Florida State University
Tallahassee, Florida 32306

Costs are not available.

Title: Planning the Education of Oregon Learners: Setting Goals

Descriptor: A pamphlet for school districts presenting the statewide goals for education and discussing the purpose and rationale for statewide and local goals.

Publication Date(s): 1975, 27 pp.

Originator: Oregon Department of Education

Intended Users: Educators in Oregon public schools who need a guide in setting local goals.

Purpose/ Content: The book presents the new statewide goals for education in Oregon. A problem solving system used to determine what schools are expected to accomplish, how much it will cost, and progress toward this end is presented. It includes ten steps:

1. set (or revise) goals
2. conduct assessment
3. identify needs
4. prioritize needs
5. develop (or modify) objectives
6. identify alternate plans
7. select (or modify) plans
8. allocate (or shift) resources
9. implement and operationalize plan
10. evaluate plan and outcomes

Usefulness Related to CBE: The book provides a simplistic approach to the shift of the rewritten minimum standards which focus on outcomes of education. As such, it should be helpful to districts in designing district, program, and course goals which will be responsive to these standards.

History of Development: In late 1973, 13 Goals Advisory Councils were nominated by school districts, intermediate education districts, and community colleges. With the suggestions made by these Councils, new elementary-secondary goals were drafted and ultimately adopted by the State Board of Education in February 1974.

Related Materials:

- o Planning the Education of Oregon Learners: Completing the Management Cycle (See D 1.7)

Ordering Information:

Write: Documents Clerk
Oregon Department of Education
942 Lancaster Drive N.E.
Salem, Oregon 97310

Cost: Free

Title:	Planning the Education of Oregon Learners: Completing the Management Cycle
Descriptor:	A pamphlet for school districts describing procedures for gathering data on the extent to which statewide goals are being attained.
Publication Date(s):	1975, 31 pp.
Originator:	Oregon Department of Education
Intended Users:	Educators in Oregon who need some help in assessing how well the statewide goals are being met.
Purpose/ Content:	Statewide priority needs are presented along with an explanation of the relationship between statewide assessment and needs identification. In addition, an explanation is provided of the State Board of Education's intents to evaluate and report district attainment of statewide goals.
Usefulness Related to CBE:	This publication represents an effort by the State Department of Education to help schools in establishing accountability for instructional programs to taxpayers as well as learners.
History of Development:	In late 1973, 13 Goals Advisory Councils were nominated by school districts, intermediate education districts, and community colleges. With the suggestions made by these Councils, new elementary-secondary goals were drafted and ultimately adopted by the State Board in February 1974. Also approved was a planning system for Oregon education that assesses learner needs related to the goals and provides insights into outcomes of the educational process.
Related Materials:	o Planning the Education of Oregon Learners: Setting Goals (See D 1.6)
Ordering Information:	Write: Documents Clerk Oregon Department of Education 942 Lancaster Drive N.E. Salem, Oregon 97310 Cost: Free

Title:	Describe a Total Learning Management System
Descriptor:	A learning package for teachers and evaluation specialists describing functions and components of a total learning system.
Publication Date(s):	1974 (Critique Edition)
Originator:	Northwest Evaluation Association (NWEA)
Intended Users:	Evaluation specialists and teachers.
Purpose:	*Goals*: Two goals are stated for the learning package: 1. The learner knows the functions of a learning manager. 2. The learner knows the components of a total learning management system. *Objectives*: Two enabling objectives which follow these goals are: 1.1 Given *A Day with Sammy* by John Flanagan, you will be able to identify by making marginal notes each of the six key activities of learning managers with 100% accuracy. 2.1 Given a small group discussion setting, you will be able to describe in detail the characteristics of each component of a total learning management system with 100% accuracy.
Content:	The activities of a learning manager as described in the package are: (1) to state learning outcomes in terms of goals and measurable objectives; (2) to adjust goals to meet individual needs; (3) to plan appropriate instruction; (4) to provide an adequate learning environment; (5) to evaluate learning based on stated objectives; and (6) to design sequential learning based on individual needs.
Usefulness Related to CBE:	This resource would be of value to any school district wishing to upgrade competencies of teachers as learning managers. Objectives are listed individually with specific assignments, activities, and evaluation appropriate to the given objective.
History of Development:	The Northwest Evaluation Association became a formal organization in 1973. A series of five workshops and learning packages have been developed and are available to school districts in Washington and Oregon. *Describe a Total Learning Management System* is one of these five learning packages.

Main Activities: The learning package may be used for individual study; however, small group work is frequently suggested for required follow-up activity. Names of resource persons are provided.

Provisions

Format: This self-instructional package may be used in

Personnel: The number of participants is not restricted. It does not appear that a trainer is essential in conducting sessions. The learning package is fairly self-explanatory as to reading assignments and follow-up activity.

Product Components: Included in the learning package are materials needed for reading assignments and exercises. Resources for reading assignments consist of the following: A Total Learning Management System; Can We Individualize In-Service Education of Teachers?; and Goals and Objectives for Technical Drawing.

Time Span: There is no indication of length of time needed. This would be determined by individual circumstances.

Conditions of Use: Users should have access to a ready made setting in which they can apply the skills taught.

Related Materials: Other learning packages from NWEA workshops:

- Write Test Items for Content Reference Tests (See B 3.3)
- Editing and Classifying Existing Test Items (See B 3.4)
- Field Testing Test Items (See B 3.6)
- Test Organization and Layout (See B 3.7)

Ordering Information:

Write: Dr. Fred Forster, Executive Secretary
Northwest Evaluation Association
Portland Public Schools
631 N.E. Clackamas Street
Portland, Oregon 97208

Cost: $6.50 (includes postage). Each participant needs a copy of the learning package.

MANAGEMENT -- SELECTION PROCEDURES D 2.2

Title: Project Management Executive Orientation

Descriptor: A multimedia training product to introduce top-level school administrators to concepts and techniques of project management.

*This product is cross-referenced in this sourcebook. See A 2.3 for a complete description.

MANAGEMENT -- DEVELOPMENTAL INSTRUCTIONS D 3.1

Title: Relevant Educational Applications of Computer Technology (REACT) Course I

Descriptor: A training course to introduce school personnel to the potential applications of computer technology to their field.

Publication Date(s): No date given.

Originator: Northwest Regional Educational Laboratory, Lindsay Building, 710 S.W. 2nd Avenue, Portland, Oregon 97204

Intended Users: Educators who are interested in using computers in administration or in subject areas.

Purpose: The REACT computer training courses were developed in recognition of the fact that a degree of "computer literacy" is valuable for all educators today. School administrators face decisions about the most appropriate use of the computer for data management in their school district. They need to know what is involved in implementing a data processing system.

Goals: The goal of the REACT program is to equip the educator to make decisions about the use of computers in administration or in a particular subject area. Educational uses of computers are presented in the broader context of the study of elementary computer concepts and the role of the computer.

Objectives: Each of the ten books comprising the course contains a list of objectives to help direct the reader.

Content: The main goal of the course is accomplished by providing a background in basic computer concepts, some experience in programming a computer, an appreciation of the social impact of the computer, and hands-on experience with administrative and instructional applications.

Usefulness Related to CBE: There are many implications for CBE in the area of educational computer technology. With some understanding of these concepts, the educator will be more competent in decisions relative to computer applications.

History of Development: These materials went through field testing. User feedback was used as a basis for revising materials.

There is no information available as to how or where the field testing was conducted. The data show that 71% of the students achieved an average score of 70% or better for all manuals in self-instructional mode. Data for the group presentation does not contribute significantly to success and the materials adapt well to either mode.

History of Development: (Cont.)

The materials have not been analyzed for racism, sexism, or other bias.

Main Activities:

Many of the books involve some work on a teletype terminal. In Book 4 of Course I, the student learns to use a teletype. After reading each book, students evaluate their comprehension by taking a self-quiz. If students score less than 80%, they are asked to review, paying particular attention to the points they missed. The suggested bibliography guides students to helpful supplementary resources. There is a self-quiz with each unit. The tenth book in the series contains unit tests for the total course.

Provisions for Use:

Format: The course may be used in a university education curriculum, in an in-service class for educators, or in an individual study program. More success has been realized when these materials have been used as part of a formal course, rather than in self-instructional mode.
Personnel: Wherever tests were conducted, it was found that the greatest need for assistance always arose during set-up: in orienting the coordinator, supplying materials and tests, and establishing procedures. After set-up, any problems that arose could be handled by telephone.
Product Components: There are ten texts which make up this course. In many of the books, the introduction lists special equipment or supplementary materials that are needed. Success in the course depends upon use of the required equipment and practice in solving the problems that are presented. Special equipment and services are: computer with BASIC compiler; computer terminal ASR 33 teletypewriter or equivalent; and computer expert available to answer questions.
Time Span: Approximately 30 hours.

Conditions of Use:

The materials are designed to be used with a computer and computer terminals but they also are being used without computer access. Therefore, they can and are being used where computer systems are available, as well as in regular classroom situations.

Related Materials:

None

Ordering Information:

Write: Technica Education Corporation
1864 South State Street
Salt Lake City, Utah 84115

Cost: Set of 10 books (one set per student) $ 20.50 per set
Teletypewriter rental (one per six students) 125.00 per month
Computer with a BASIC compiler (1) depends on system.
About two hours terminal connect time per student.

Title: SWRL Proficiency Verification Systems (PVS): Mathematics and Reading

Descriptor: Semi-automated systems providing information about mathematics and reading instruction.

Publication Date(s): Not published as of August 1976

Originator: Southwest Regional Laboratory for Educational Research and Development (SWRL)

Intended Users: Teachers and administrators in conjunction with elementary mathematics and reading programs.

Purpose: These systems provide information about instruction resulting from use of commercially available programs in elementary school mathematics and reading.
Goals: The primary goal of these systems is to enable teachers and administrators to evaluate the effectiveness of an instructional series in terms of basic proficiencies which have been achieved through the instruction. PVS allows teachers and administrators to track pupil accomplishments in conjunction with district use of a program, and also provides the opportunity to look at the results in the context of results obtained with other widely-adopted programs.
Objectives: Not specifically stated in these systems.

Content: The basic component of PVS is the Annual Pupil Survey (APS), administered at the end of the school year. The APS includes a broad range of test items representing instruction in major commercial mathematics programs. The entire range of items for each APS is spread over multiple text forms, with every child completing only one form of the test. The items that are common across all tests focus on benchmark skills such as number recognition, computation, measurement, and verbal problem solving. From the APS, separate reports are generated for district coordinators, principals, and teachers.

Usefulness Related to CBE: The user may install this system to determine the effectiveness of reading and mathematics instruction.

History of Development: Currently in development. Further information is not available at this time.

Main Activities: The flexibility and simplicity of PVS operations accommodate each district's unique decision-making and organizational structure. PVS operations are easily monitored by one person designated within the district as PVS

Main Activities: (Cont.)

coordinator and by individual school principals. Participation in PVS includes the following basic activities:

- District personnel identify anticipated scope of PVS participation, the reading and mathematics programs, and other materials being used.
- During the year, PVS participants are sent appropriate resources for initiating PVS using various PVS components with the designated programs.
- The district returns all assessment records to SWRL for data analysis.
- SWRL sends PVS Class, School, and District Reports to appropriate district and school personnel.

Training materials and procedures are provided by SWRL to familiarize key school personnel with PVS operations and applications. An early orientation helps prepare administrative, supervisory, and instructional personnel to derive maximum advantage from PVS participation and use of the mathematics programs.

Provisions for Use:

Format: Assessment information system; PVS reports are used by school personnel during the year to make instructional and management decisions.
Personnel: District and school administrators and teachers.
Product Components: Checklist of Mathematics Objectives; Annual Pupil Survey; District, Class, and School Reports; Beginning-Skills Inventory (optional); Learning Mastery Systems (optional); and Mid-Program Survey and Report (optional).
Time Span: Approximately one school year is needed to correspond with mathematics program usage.

Conditions of Use:

To initiate PVS use, district personnel participate with SWRL in identifying programs and program materials used in district classrooms, and basic ways these materials are used during instruction.

Related Materials:

- SWRL Learning Mastery Systems (LMS): Reading and Mathematics
- SWRL Quality Assurance (QA) Information Service

Ordering Information:

This product is currently in development. Information regarding tryout participation opportunities is available from:

SWRL Educational Resource Services
4665 Lampson Avenue
Los Alamitos, California 90720

Cost: Not available

Title:	CSE Summative Evaluation Kit
Descriptor:	An instructional kit for anyone involved in carrying out program evaluation.

*This product is cross-referenced in this sourcebook. See "Main Activities" of B 2.3 for a complete description.

Title:	*Educational Development, Dissemination, and Evaluation (DD&E) Training Resources
Descriptor:	A program for training professionals in educational development, dissemination, and evaluation.

*This product is cross-referenced in this sourcebook. See "Content: Series 2" of C 3.13 for a complete description.

Title:	Evaluating a Curriculum Program: An Educator's Handbook
Descriptor:	A workshop to teach school personnel to evaluate curriculum programs.

*This product is cross-referenced in this sourcebook. See B 3.2 for a complete description.

Title:	IDEA Change Program for Individually Guided Education Ages 5-12
Descriptor:	A teacher in-service program aimed at individualizing learning and continuous improvement of the staff and school.
Publication Date(s):	1975
Originator:	Institute for Development of Educational Activities (IDEA)
Intended Users:	School personnel wishing to implement an individualized instruction program in their school.
Purpose:	*Goals*: There are no specific goals stated in the program. *Objectives*: There are 35 outcomes printed on "outcome pages" in the *Implementation Guide*. Each of the outcomes is treated as follows: (1) self-assessment or the degree of achievement of the outcome; (2) I/D/E/A materials specifically related to the outcome; (3) suggestions for implementing the outcome; (4) in-service activities to learn about the outcome; and (5) the period of time when the outcome was selected for emphasis.
Content:	The training materials consist of films, filmstrips, and print documents designed for use in professional growth programs. The contents of the *Implementation Guide* parallels the major areas treated in the program. Chapter 1 of the guide provides suggestions and activities to help in using the guide. Chapter 2 explains briefly how Individually Guided Education (IGE) works within schools and communities. Chapter 3 lists the outcomes. Chapter 4 lists and explains materials for use in implementation of the program. Following these chapters are outcome pages, glossary, and index. Materials are classified for use according to their application to either of the two primary process elements of (1) individualizing learning or (2) continuous improvement.
Usefulness Related to CBE:	The program has specific goals which clarify identifiable outcomes on which teachers may work.
History of Development:	The program is the result of seven years of research and development conducted cooperatively with many people and institutions. The authors provide the following description:

History of Development: (Cont.)

> "In 1970, there were 125 schools participating in the project. Today, more than 1,400 schools in 37 states, plus American-sponsored schools in approximately two dozen other countries, are in some phase of implementing the IGE processes.
>
> Each phase of developing IGE has been accompanied by special attention to evaluation. Initially, we examined research relating to selected school practices that ultimately became a part of IGE. The way we combined these practices into a comprehensive design for use in schools was analyzed intensely by selected teachers and administrators and by university scholars.
>
> The IGE training materials and clinical workshops that have emerged from our developmental efforts have been shaped by both formal and informal studies of their effectiveness. We continue to operate and refine a comprehensive system of monitoring the extent to which the IGE concepts are being implemented in participating schools."

An evaluation report was prepared by Belden Associates and is available from IDEA. The data is based upon inquiries regarding the effects of IGE and summarizing how administrators, teachers, parents, and students feel about aspects of IGE.

Main Activities:

Activities are centered around learning about the outcomes. These are the same for each outcome as follows:

1. Read print documents.
2. View films and filmstrips.
3. Discuss the "Items for Discussion" in the filmstrip study guides.
4. Consult with the a facilitator.
5. Interact with others in the school.
6. Establish a task group to research this outcome in the related literature and media.
7. Invite others to come to the school to clarify, explain and assist with implementing this outcome.
8. Visit and observe others who have achieved this outcome.
9. Participate in an exchange with a person from another school involved in the program.
10. Attend IGE conferences and clinical workshops.

Provisions for Use:

Format: An Intermediate Agency recruits interested schools and then sends a trained facilitator to work with schools from the beginning of the program.
Personnel: In order to have credibility with the school staff the facilitator should have previous experience at the same level, e.g., elementary, middle school, etc. Personal traits should include being energetic, supportive, empathetic, and a problem solver. The facilitator

Provisions for Use: (Cont.)

attends a two-week clinical workshop with extensive training in the 35 outcomes, and then attends a three-day follow-up where the five facilitator outcomes are studied.

Product Components: IGE materials include: two films, one providing an overview of IGE and the other acquainting the staff with procedures for group problem solving; 15 filmstrips and accompanying study guides; and seven print documents to use in investigating, implementing, innovating, and improving.

Time Span: It takes about a year to get the program started.

Conditions of Use:

While the outcomes are written in a suggested sequence, alterations may be made depending on local situations, the existing level of attainment of some of the outcomes, etc. Before developing a sequence some kind of assessment should be made for each outcome.

Related Materials:

- Individually Guided Education (Multiunit School Implementation) (See D 1.4)

Ordering Information:

Write: John M. Bahner
I/D/E/A
5335 Fair Hills Avenue
Dayton, Ohio 45429

Cost:

- Films
  - One at a Time, Together
  - The Meeting
- Filmstrips
  - A Reach for Tomorrow
  - Elementary School Special Resource Teachers
  - IGE Learning Modes
  - Implementation of IGE
  - Managing the IGE Learning Program I
  - Managing the IGE Learning Program II
  - Managing the IGE Learning Program III
  - Organized for Learning
  - Parents are Important
  - Performance Testing and Observation
  - The Importance of the League
  - The Three Phases of Planning Part 1
  - The Three Phases of Planning Part 2
  - What It's Like to Be in IGE
  - Working Together
- Print Documents
  - Color Me IGE
  - Filmstrip Study Guide Kit (15 titles)
  - Implementation Guide
  - The Community of Learning
  - The League of Schools
  - The Learning Climate
  - The School in Change

Approximately $800.00

Ordering Information: (Cont.)

There are several options for covering the costs of a facilitator:

- In a School of Education, the Supervisor of Student Teachers might become the facilitator.
- Several possible staff members in a school district are appropriate.
- Staff at a state education agency involved in school improvement are likely candidates.

In each case, the group serving as Intermediate Agency should take care of the facilitator's transportation, lodging, and meals.

Title: School Planning, Evaluation, and Communication System (SPECS)

Descriptor: A set of processes for collecting and analyzing data describing school system outcomes, processes, and costs.

Publication Date(s): 1976, components for program utilization; 1976 (Revised), instructional materials; 1975, illus. monograph of program overview

Originator: John M. Nagle, Harold E. Walker, and Lloyd A. DuVall, Center for Educational Policy and Management (CEPM), University of Oregon

Intended Users: Users of SPECS materials and processes are school district professional staff. Teachers use materials to collect achievement information about students. Teachers and administrators use the materials to analyze, plan, and evaluate the curriculum. Citizens use SPECS processes indirectly by their involvement in district goal setting. Finally, boards of education use information generated by SPECS in making district policy decisions.

Purpose: Goals: Schools using SPECS will be able to plan, implement, evaluate, and replan programs of activities using actual performance data. SPECS provides processes for assisting schools in collecting six types of program information -- outcomes, processes, and inputs (desired and actual). SPECS allows those responsible for programs to make this information explicit and use it systematically as they develop initial plans, monitor processes during implementation, evaluate results, and eventually formulate new plans for the next cycle of operations.

Objectives: The objectives must be stated as they relate to each of the five components:

1. To provide information on current status and identify hierarchical relationships among current programs and activities.
2. To produce an annual program budget and periodic program accounting reports.
3. To produce procedural guides/work aids for program planning and evaluation.
4. To provide means for citizen participation in setting broad educational goals.
5. To produce periodic reports identifying specific district needs and setting priorities for dealing with these needs.

Content: The main subject areas covered are administrative systems and instructional management systems pertaining to procedures for: (1) Building a school district program structure, (2) converting to a program budget format, (3)

Content: (Cont.) collecting data about student outcomes, (4) community definition of a school district's goal structure, and (5) determining matches between community goals and student outcomes.

Usefulness Related to CBE: SPECS addresses some of the most common problems in education today -- evaluation of programs, accountability, community involvement, and finance. In other words, school districts are enabled with a system for identifying what they are trying to do for students, how they are trying to do it, related costs, and the results of these efforts.

History of Development: SPECS was pilot tested in an Oregon school district of approximately 3,500 students and 175 staff members. The development staff worked closely with these teachers and administrators. Data were collected for purposes of revision and modifications.

In 1974, SPECS was field tested in approximately 13 school districts in seven states. At this point data was gathered to test implementation strategies, in-service training approaches, and a pattern of dissemination involving local consultants. Teachers and administrators are able to plan, monitor, and evaluate programs more completely than is possible in most schools. It has been found that more students have access to individualized learning, student achievement is increased, and learning problems can be diagnosed more quickly. Further, a clearer definition of curriculum and course objectives results, more flexibility in budget management is developed, and community involvement in the public schools is increased.

Main Activities:

- Collecting and displaying data about the district's current array of instructional and noninstructional functions, activities, or programs.
- Developing forms and procedures for collecting and displaying data; translating district's current operating budget from line item format to program format; and developing computerized data-processing system to handle expected flow of budgetary and expenditure data relevant to each program.
- Writing instructional goals and objectives, selecting program methods and materials for implementing these, and collecting and interpreting data about actual student performance.
- Involving representative sample of citizens in generating and reviewing a set or structure of broad educational goals.
- Perceiving summarized program education data.
- Familiarization of community's broad goals.
- Determining lack of consonance between program evaluation data and community goals.
- Developing recommendations to meet needs presented by gaps between the program evaluation data and the community goals.

Provisions for Use:

Format: Workshops, courses, and consultation sessions.

Personnel: A school district administrative staff member is required to coordinate all SPECS activities. Outside consultant help of 10 to 15 days is necessary during the first year of implementation. Involvement of all professional staff is required.

Product Components:

- SPECS: What It Is and What It Does -- An illustrated monograph which presents a broad overview of SPECS as a system, including a description of each component and how they interrelate.
- The Component One Implementation Booklet: A Systems Analysis of a School District -- Explains the rationale and objectives of Component One. Includes three alternative approaches for completing a systems analysis of a district.
- The Component Two Implementation Booklet: Program Budgeting and Cost Accounting -- Describes fourteen steps toward implementing a program budgeting and cost accounting system.
- The Component Three Implementation Booklet: Instructional Program Planning, Evaluation, and Communication -- Explains the rationale and objectives of program planning and evaluation. Includes detailed suggestions for implementing a planning and evaluation system, simulated materials for classroom use, and "how to" write objectives and summarize data.
- Instructional Program Summary Plan -- Four-page document summarizing program's objectives, procedures, and resources prior to implementation.
- Instructional Program Summary Report -- Six-page document which summarizes objectives, student performance data, and assessment results.
- Record of Instructional Program Objectives -- Self-contained booklet for recording instructional program objectives including cognitive, affective, and psychomotor.
- Weekly Lesson Plans (For One Program) -- Designed for one-year coverage, the plan book records objectives, instructional procedures, and formative evaluation of each week.
- Weekly Lesson Plans (For Up To Three Programs) -- Same as above, except space is provided for three programs.
- Record of Student Performance -- Self-contained booklet with three sections for recording performance related to specific objectives.
- The Component Four Implementation Booklet: Community-Based Broad Goal Definition -- Provides step-by-step information needed to implement Component Four.
- A Supplement to the Component Four Implementation Booklet: Broad Goal Definition in Emerald School District -- Describes in detail how personnel in the fictitious Emerald School District implemented Component Four.

Provisions for Use: (cont.)

- The Component Five Implementation Booklet: Assessing Achievement of the District's Broad Goals -- Provides suggested means of determining the match or gap between community defined educational goals and the district's instructional objectives.

Conditions of Use:

A high level of commitment is necessary from administrative staff and teachers. Implementation requires several steps:

- District-wide planning committee determines specific implementation strategy.
- Implementation plan identifies time lines, needed resources, program areas for initial attention, and monitoring process.
- Initial implementation efforts (i.e., in-service sessions, information sharing efforts, etc.).
- Initially identified activities made operational.

Use of a phase-in strategy appears to be most successful.

Related Materials:

- CSE Evaluation Workshops
- CSE Elementary School Evaluation Kit: Needs Assessment (See A 2.1)
- Evaluation for Program Improvement (See B 3.5)
- Administering for Change Program (RES)

Ordering Information:

Write:

Center for Educational Policy and Management
University of Oregon
1472 Kincaid Street
Eugene, Oregon 97403

Cost:

Orientation Materials:	
SPECS: What It Is and What It Does (1 per bldg.)	$4.00
Implementation Booklets:	
Component 1 (1 per building)	$2.00
Component 2 (5-6 per district)	3.00
Component 3 (1 per staff member)	3.00
Component 4 (10-12 per district)	2.00
Component 5 (1 per building)	2.00
Operational Documents:	
Instructional Program Summary Plan (1 per teacher)	$ .40
Instructional Program Summary Report (1 per teacher)	.40
Record of Instructional Program Objectives (1 per teacher)	1.15
Weekly Lesson Plans (1 per teacher)	
for one program	1.00
for up to three programs	2.50

Consultant's manual will be available fall 1976.

Ordering Information: (Cont.)	Excluding computer access, a school district can initiate a one-year pilot implementation in one or two schools for approximately $3,000 as evidenced in current field test sites. The rate of expansion to other schools, the number of teachers and administrators involved, and the level of activity initiated in each of the components will affect costs in succeeding years. Computer costs will vary depending on the amount of data processed and the availability of computer services in each locality. To implement Component 2, districts should have access to a computer that can handle program cost accounting at least at the level of content areas within schools.

This description was adapted from Educational Dissemination and Linking Agent Sourcebook.

Title: Opening Institutional Ledger Books -- A Challenge to Educational Leadership: ERIC/TM Report #28

Descriptor: A report describing ways of reporting test data to parent and community groups.

Publication Date(s): 1974, 13 pp.

Originator: Edwin P. Larsen, ERIC Clearinghouse on Tests, Measurement, and Evaluation, Educational Testing Service (ETS)

Intended Users: Evaluators and other educational personnel who need to explain test data to audiences who lack sophistication in measurement.

Purpose: The purpose of this report is to provide information and guidelines about ways in which various kinds of test data may be effectively reported to the public. Use of procedures suggested in this report is expected to result in greater public understanding of testing and of the interpretation of test data.

Content: Three topics are presented to the reader in a lesson format. The first lesson explains ways of developing public understanding of tests and testing. The second lesson describes how to chart the results of tests so that information is clearly and easily understood. The third lesson provides guidelines for discussing results and stresses discussion of the schools' accountability for test scores.

Usefulness Related to CBE: Although this report does not specifically discuss objectives-based tests, the suggestions and methods contained therein appear to be useful in building public understanding of the role of testing in a CBE program.

Related Materials: None

Ordering Information: Copies of this document are available (Order No. TM 004303) from:

ERIC Clearinghouse on Tests, Measurement, and Evaluation
Educational Testing Service
Princeton, New Jersey 08540

Costs: $.76 (microfiche), $1.50 (hardcopy). Add $.18 for postage.

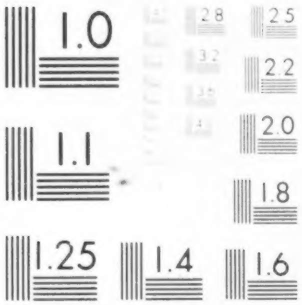
Title:	Evaluating Classroom Progress
Descriptor:	A brief report describing a system for continuous classroom evaluation of individual learners.
Publication Date(s):	1973, 3 pp.
Originator:	Don Bushell, Jr., Department of Education, University of Kansas, and the Behavior Analysis Program of Project Follow-Through
Intended Users:	For educational evaluators at the district level who are concerned with developing evaluation systems related to ongoing instruction.
Purpose:	Proponents of the system described in the report point out that a relevant evaluation system "provides frequent information about the progress or the lack of progress being made toward the final objective -- a system that measures change."
Content:	The paper, which was presented at the American Educational Research Association Meeting, February 1973, outlines a general procedure. It is correlated to the instructional objectives written for the program, but is nevertheless applicable to any instructional plan. The steps are outlined as follows: (1) define an instructional objective -- this is compared to entry level skill of each student and steps are written to be accomplished in the 40-week school year; (2) a record is kept of weekly book and page placement of each learner; (3) this is transferred to a "class progress chart" showing the level of each learner; (4) a weekly report of learner progression is made to show degree of improvement, problem areas, etc., so that adjustments may be made in instruction; (5) the weekly report information are shown by pencil marks and read by an optical scanning machine; (6) placement of each learner is telephoned to a computer center where a check is made of individual shortcomings or successes for the week; (7) a specific objective is written for each learner based on progress and year end objective; (8) this information is telephoned to the teletype and a list of new objectives is returned to the teacher.
Usefulness Related to CBE:	The system appears to provide educators with a vehicle for employing criterion-referenced measurement. In addition, the system maintains that direction and guidance are built into the educational process.

Related Materials: None

Ordering Information: This document is available (Order No. ED 076 652) from:

ERIC Document and Reproduction Service
P.O. Box 190
Arlington, Virginia 22210

Cost: $.65 (microfiche), $3.29 (hardcopy)


1.0
2.8
2.5
3.2
2.2
3.6
4.0
2.0
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1.8
1.25
1.4
1.6

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

Title: Profiling and Tracking Students in C/PBTE Programs

Descriptor: A technical assistance paper detailing recordkeeping systems for Competency/Performance-Based Teacher Education (C/PBTE) programs in three universities

Publication Date(s): May 1976, 56 pp.

Originator: Committee on Performance-Based Teacher Education, American Association of Colleges for Teacher Education (AACTE)

Intended Users: Anyone involved in the operation of a competency-based teacher education program.

Purpose: Authors state that this PBTE monograph series is "designed to expand the knowledge base about issues, problems, and prospects regarding PBTE," and that it is "targeted more specfically at providing solutions for the practical problems encountered by operators of performance-based programs."

Content: Three separate papers are presented in this monograph as follows:

1. "Computer Management of Student Records in a Competency-Based Teacher Education System," Paul D. Gallagher, Associate Dean, School of Education, Florida International University
2. "A Computerized Student Data System for CBTE Program Support," Rita C. Richey, Assistant Professor, Division of Teacher Education, and Fred S. Cook, Director, Institute for the Research and Development of Competency-Based Teacher Education, Wayne State University
3. "Profiling and Tracking Students Through the Utilization of a Computerized Information System," Joe Lars Klingstedt, Associate Professor of Curriculum and Instruction, and Stanley Ball, Assistant Professor of Curriculum and Instruction, University of Texas at El Paso

Usefulness Related to CBE: The computerized systems presented here provide considerable insight in the matter of storage and retrieval of information on student progress, individual and program evaluation, research, cost accounting, and budget analysis. Descriptions can be helpful either in designing new systems or modifying existing ones.

Related Materials: An earlier series was published by this Committee of AACTE:

- *What Competencies Should Be Included in C/PBTE Program?* Patricia M. Kay, Washington D.C.: American Association

Related Materials: (Cont.) of Colleges for Teacher Education, 1975.

Ordering Information: Write: Order Department
AACTE
One Dupont Circle, Suite 610
Washington, D.C. 20036

Cost: Information not available.

Title: OTIS Users' Competency Recordkeeping Handbook

Descriptor: A description of the applications and uses of a competency-recordkeeping system in Oregon.

Publication Date(s): Date not given, 29 pp.

Originator: Oregon Total Information System (OTIS)

Intended Users: Designed for use by districts after local needs have been determined relative to recordkeeping.

Purpose: The overall purpose of the description is to make districts aware of the options available to them in the use of procedures and forms.
The reader will understand that there are several system options which are explained under the following headings: (1) competency file; (2) assignment of competencies; (3) reporting of competencies; (4) computer printed reports.

Content: Following an overview explanation of the system is a discussion of the following major topics:

I. Getting on the system
II. Assigning competencies to courses or departments
III. Methods of entering new competency demonstrations into the student files
IV. Special reports
V. Miscellaneous (transfer students, special cases, standardized tests, future revisions of district competencies)

Usefulness Related to CBE: After a district has analyzed its own specific needs and philosophies, a decision can be made whether to use all or part of the OTIS system.

Related Materials: None

Ordering Information: Write: Oregon Total Information System
1200 Highway 99 North
Eugene, Oregon 97402

Cost: OTIS pays line charges for terminals installed in user districts in the following ratio:

a. Districts of 1,500 ADM, or above: one terminal per secondary school plus one terminal at the business office.
b. Districts below 1,500 ADM, but above 750 ADM: two terminals.
c. Districts below 750 ADM: one terminal.

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